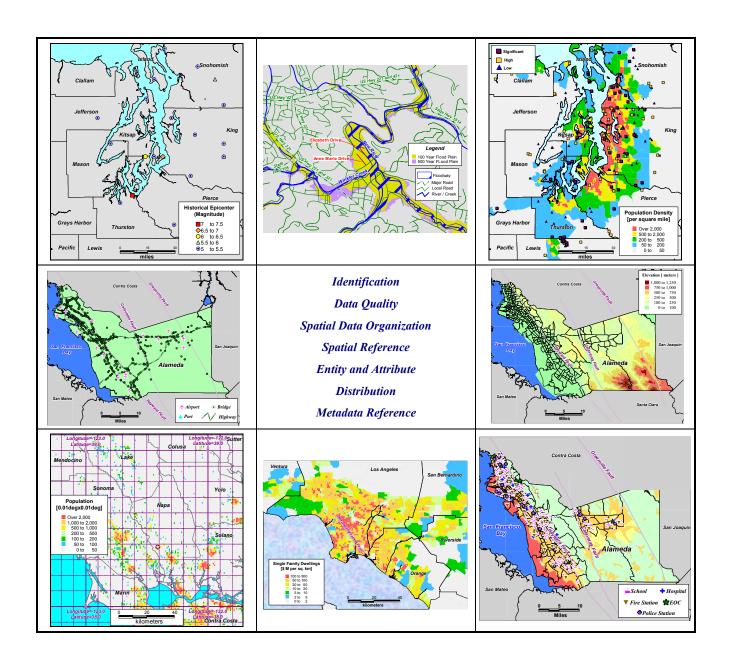
# **HAZUS<sup>®</sup>99 SR-1 Metadata Document**

## January 10, 2001





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NIBS is a non-governmental, non-profit organization, authorized by Congress to encourage a more rational building regulatory environment, to accelerate the introduction of existing and new technology into the building process and to disseminate technical information.

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## 1. Introduction

Recognizing the importance of developing a consistent approach to sharing geographic data among all users, President Clinton signed Executive Order 12906, which called for the establishment of the National Spatial Data Infrastructure (NSDI). The NSDI, which is administered by the Federal Geographic Data Committee (FGDC), sets forth policies, standards, and procedures for organizations to cooperatively produce and share geographic data.

Appendix I was developed to comply with the provisions of the Content Standards for Digital Geospatial Data Metadata (FGDC-STD-001-1998). It provides the HAZUS user with information on metadata, or data about the data. Detailed information is provided on the data in HAZUS, including data content, characteristics, spatial reference, data quality, and other information that will enable the HAZUS user to use the program more effectively.

Appendix I addresses thirty-nine (39) datasets that are incorporated in HAZUS (e.g., Medical Care Facilities). The information on HAZUS data is organized under the seven sections that are prescribed in the Content Standards for Digital Geospatial Data Metadata, as set forth below. The "data about the data," noted in italics, are discussed in more detail in the Glossary of Terms.

#### 1. Identification Information

This section provides general information about the dataset, including *citation information* (originator of the database, name of documents that were produced that describe the database, websites); *description of the database* (contents of the database, sources of data that were used, contact information for the sources of the data, and the purpose of the database); *time period of content* (time period of the data that was used, e.g. 1990 to 2000); *status* (status of the database development, e.g., "complete"); *spatial domain* (the limits of coverage of a dataset); *access and use constraints*; and *point of contact* for further information on HAZUS.

#### 2. Data Quality Information

This section presents a general assessment of the quality of the dataset, including *attribute* and *positional accuracy; consistency; completeness*; and *lineage* (factors which contributed to the constructed dataset).

#### 3. Spatial Data Organization Information

This section provides information on the mechanism used to represent spatial information in the dataset, including *spatial reference* and *point and vector object information* (types and numbers of vector or nongridded point spatial objects in the dataset).

#### 4. Spatial Reference Information

This section provides the reference frame for, and the means to encode, coordinates in the dataset. Data in this section includes *geographic coordinate units* and *geographic coordinates*.

#### 5. Entity and Attribute Information

This section presents details about the information content of the dataset, including the *Entity Types*, their *Attributes*, and the *Domains* from which attribute values may be assigned.

#### 6. Distribution Information

This section provides information on the Distributor, the Standard Order Process, and Distributor Liability.

#### 7. Metadata Reference Information

This section provides information on the date the metadata was completed (*Metadata Date*); the name of the metadata standard used to document the data (*Metadata Standard Name*); and the party responsible for the metadata information (*Metadata Contact*).

## 2. Buildings and Facilities

## 2.1 General Building Stock:

## 2.1.1 Square Footage

## 1. Identification Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication\_Date: 19970601

Title: HAZUS: General Building Stock: Occupancy Square Footage Data On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

#### 1.2 Description:

#### Abstract:

This database contains building square footage information for each census tract in the United States. The data is categorized by the standard HAZUS 28 occupancies that describe the residential, commercial, industrial, and government building information for the United States.

The data was developed using a combination of decennial census data (1990) and information provided by the Dun & Bradstreet Corporation (D&B) in 1996. The census data was used primarily to estimate the residential square footage information, while the D&B data was used to estimate the building square footage for non-residential occupancies.

The contact information for Dun & Bradstreet Corporation is: Dun & Bradstreet Government Services, Rosslyn Center, 1700 North Moore Street Suite 1250, Arlington VA 22209, (703) 276-7856. The D&B website address is: <a href="http://www.dnb.com/">http://www.dnb.com/</a>.

The contact information for the United States Census Bureau is: 4700 Silver Hill Road, Suitland, MD 20746, (301) 457-4608. The U.S. Census Bureau website address is: <a href="http://www.census.gov/">http://www.census.gov/</a>.

#### Purpose:

The database is used by HAZUS to estimate the amount of damage associated with the general building stock for a given earthquake scenario. The building damage estimates are subsequently used to compute the estimated economic impacts, casualties and shelter demands.

#### 1.3 Time Period of Content:

Time Period Information:

Range\_of\_Dates/Times:

**US Census Data:** 

Beginning\_Date: 19900000 Ending\_Date: 19900000

Dun & Bradstreet:

Beginning\_Date: 19950000 Ending\_Date: 19960000

#### 1.4 Status:

Progress: Complete

Maintenance and Update Frequency: As needed

#### 1.5 Spatial Domain

Bounding\_Coordinates:

West Bounding Coordinate: -187.637 degrees East\_Bounding\_Coordinate: -64.570 degrees North Bounding Coordinate: 71.434 degrees South\_Bounding\_Coordinate: 17.681 degrees

## 1.6 Keywords:

Theme:

Theme Keyword: HAZUS Theme Keyword: Inventory

Theme\_Keyword: General Building Stock

Theme\_Keyword: Square Footage

#### Place:

Place Keyword: USA Place\_Keyword: Alabama Place Keyword: Alaska

Place Keyword: American Samoa

Place Keyword: Arizona Place Keyword: Arkansas Place Keyword: California Place\_Keyword: Colorado Place\_Keyword: Connecticut Place Keyword: Delaware

Place\_Keyword: District of Columbia

Place Keyword: Florida Place Keyword: Georgia Place Keyword: Guam Place\_Keyword: Hawaii Place Keyword: Idaho Place\_Keyword: Illinois Place Keyword: Indiana Place\_Keyword: Iowa Place\_Keyword: Kansas Place Keyword: Kentucky Place\_Keyword: Louisiana

Place\_Keyword: Mariana Islands

Place Keyword: Maryland

Place Keyword: Maine

Place\_Keyword: Massachusetts

Place Keyword: Michigan Place\_Keyword: Minnesota Place Keyword: Mississippi Place Keyword: Missouri Place\_Keyword: Montana Place Keyword: Nebraska Place\_Keyword: Nevada

Place\_Keyword: New Hampshire Place\_Keyword: New Jersey Place Keyword: New Mexico Place\_Keyword: New York

Place\_Keyword: North Carolina Place\_Keyword: North Dakota

Place Keyword: Ohio

Place\_Keyword: Oklahoma

Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania

Place\_Keyword: Puerto Rico

Place\_Keyword: Rhode Island Place Keyword: South Carolina

Place\_Keyword: South Dakota

Place\_Keyword: Tennessee

Place\_Keyword: Texas

Place\_Keyword: Utah

Place\_Keyword: Vermont

Place\_Keyword: Virgin Islands

Place\_Keyword: Virginia

Place\_Keyword: Washington

Place\_Keyword: West Virginia

Place\_Keyword: Wisconsin

Place\_Keyword: Wyoming

1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

### 2. Data\_Quality\_Information

2.1 Attribute Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness Report: Unknown

2.4 Positional Accuracy: Information collected at a Census Tract resolution level

2.5 Lineage: Unknown

## 3. Spatial\_Data\_Organization\_Information

3.1 Indirect Spatial Reference:

3.2 Direct Spatial Reference Method: None

3.3 Point\_and\_Vector\_Object\_Information:

#### 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

#### 5. Entity\_and\_Attribute\_Information:

#### 5.2 Overview Description

5.2.1 Entity and Attribute Overview:

The general building stock square footage database file and the individual state and territory files contain 30 fields.

Entity\_and\_Attribute\_Detail\_Citation: TRACT

Entity\_and\_Attribute\_Detail\_Citation: RES1

Entity\_and\_Attribute\_Detail\_Citation: RES2

Entity and Attribute Detail Citation: RES3

Entity and Attribute Detail Citation: RES4

Entity and Attribute Detail Citation: RES5

Entity and Attribute Detail Citation: RES6

Entity and Attribute Detail Citation: COM1

Entity\_and\_Attribute\_Detail\_Citation: COM2

Entity\_and\_Attribute\_Detail\_Citation: COM3

Entity and Attribute Detail Citation: COM4

Entity and Attribute Detail Citation: COM5

Entity and Attribute Detail Citation: COM6

Entity and Attribute Detail Citation: COM7

Entity and Attribute Detail Citation: COM8

Entity\_and\_Attribute\_Detail\_Citation: COM9

Entity and Attribute Detail Citation: COM10

Entity\_and\_Attribute\_Detail\_Citation: IND1

Entity and Attribute Detail Citation: IND2

Entity\_and\_Attribute\_Detail\_Citation: IND3

Entity and Attribute Detail Citation: IND4

Entity\_and\_Attribute\_Detail\_Citation: IND5

Entity\_and\_Attribute\_Detail\_Citation: IND6

Entity and Attribute Detail Citation: AGR1

Entity and Attribute Detail Citation: REL1

Entity and Attribute Detail Citation: GOV1

Entity\_and\_Attribute\_Detail\_Citation: GOV2

Entity and Attribute Detail Citation: EDU1

Entity and Attribute Detail Citation: EDU2

Entity and Attribute Detail Citation: TOTAL

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

#### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

### 7. Metadata\_Reference\_Information

7.1 Metadata\_Date: 20010301

7.2 Metadata\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

## 2.2 Essential Facilities:

#### 2.2.1 Medical Care Facilities

## 1. Identification\_Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication Date: 19991101

Title: HAZUS: Essential Facilities: Medical Care Facilities Database On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

## 1.2 Description:

Abstract:

The database was developed from data provided by the American Hospital Association (AHA). AHA provided information on 10,032 hospitals and medical clinics for the entire United States. The attribute information provided by AHA for each medical care facility included: name, address, telephone number, geographical coordinates and number of beds

The contact information for the American Hospital Association is: One North Franklin: 27<sup>th</sup> Floor, Chicago IL 60606, (800) 242-2626. The AHA website address is: <a href="http://www.aha.org/">http://www.aha.org/</a>.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with medical care facilities for a given earthquake scenario. By evaluating this information in conjunction with casualty estimates, the HAZUS user can determine whether the earthquake scenario may overwhelm the mass care capabilities of the region.

#### 1.3 Time Period of Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: 19980000 Ending Date: 1999000

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

#### 1.5 Spatial Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -166.720 degrees East\_Bounding\_Coordinate: -64.769 degrees North\_Bounding\_Coordinate: 70.241 degrees South\_Bounding\_Coordinate: 17.711 degrees

## 1.6 Keywords:

Theme:

Theme\_Keyword: HAZUS Theme\_Keyword: Inventory

Theme\_Keyword: Essential Facilities
Theme Keyword: Medical Care Facilities

#### Place:

Place\_Keyword: USA
Place Keyword: Alabama

Place\_Keyword: Alaska

Place\_Keyword: Arizona

Place\_Keyword: Arkansas

Place\_Keyword: California

Place Keyword: Colorado

Place\_Keyword: Connecticut

Place Keyword: Delaware

Place Keyword: District of Columbia

Place Keyword: Florida

Place Keyword: Georgia

Place\_Keyword: Hawaii

Place\_Keyword: Idaho

Place\_Keyword: Illinois

Place Keyword: Indiana

Place\_Keyword: Iowa

Place Keyword: Kansas

Place Keyword: Kentucky

Place Keyword: Louisiana

Place Keyword: Maine

Place Keyword: Maryland

Place\_Keyword: Massachusetts

Place\_Keyword: Michigan

Place Keyword: Minnesota

Place\_Keyword: Mississippi

Place Keyword: Missouri

Place Keyword: Montana

Place Keyword: Nebraska

Place\_Keyword: Nevada

Place\_Keyword: New Hampshire

Place\_Keyword: New Jersey

Place Keyword: New Mexico

Place\_Keyword: New York

Place\_Keyword: North Carolina

Place Keyword: North Dakota

Place\_Keyword: Ohio

Place Keyword: Oklahoma

Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania

Place\_Keyword: Puerto Rico

Place Keyword: Rhode Island

Place\_Keyword: South Carolina

Place Keyword: South Dakota

Place Keyword: Tennessee

Place\_Keyword: Texas

Place Keyword: Utah

Place\_Keyword: Vermont

Place\_Keyword: Virgin Islands

Place\_Keyword: Virginia

Place Keyword: Washington

Place\_Keyword: West Virginia

Place\_Keyword: Wisconsin Place\_Keyword: Wyoming

1.7 Access\_Constraints: None1.8 Use\_Constraints: None1.9 Point of Contact

Contact\_Information:

Contact Person Primary:

Contact Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

### 2. Data Quality Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional Accuracy: Unknown

2.5 Lineage: Unknown

## 3. Spatial\_Data\_Organization\_Information

3.1 Indirect Spatial Reference:

3.2 Direct\_Spatial\_Reference\_Method: Point

3.3 Point\_and\_Vector\_Object\_Information:

#### 4. Spatial Reference Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

#### 5. Entity and Attribute Information:

## 5.2 Overview\_Description

5.2.1 Entity and Attribute Overview:

The medical care facilities database file and the individual state and territory files contain 27 fields.

Entity and Attribute Detail Citation: ID Entity and Attribute Detail Citation: NAME Entity and Attribute Detail Citation: ADDRESS Entity\_and\_Attribute\_Detail\_Citation: CITY Entity and Attribute Detail Citation: STATE Entity and Attribute Detail Citation: ZIPCODE Entity and Attribute Detail Citation: CONTACT Entity and Attribute Detail Citation: PHONE Entity and Attribute Detail Citation: CLASS Entity and Attribute Detail Citation: MAPPING Entity and Attribute Detail Citation: BLDG TYPE Entity and Attribute Detail Citation: DESIGNLVL Entity\_and\_Attribute\_Detail\_Citation: BIAS Entity and Attribute Detail Citation: FOUNDATION Entity and Attribute Detail Citation: YEAR B Entity and Attribute Detail Citation: COST Entity and Attribute Detail Citation: BU PWR Entity and Attribute Detail Citation: FUNCTION Entity and Attribute Detail Citation: NUM BEDS Entity and Attribute Detail Citation: AHA ID Entity and Attribute Detail Citation: ELEVAT Entity\_and\_Attribute\_Detail\_Citation: LAT Entity and Attribute Detail Citation: LONG Entity\_and\_Attribute\_Detail\_Citation: GEORES Entity and Attribute Detail Citation: COUNTY Entity and Attribute Detail Citation: COMMENT Entity and Attribute Detail Citation: ID

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

### 6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

## 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

#### 6.5 Custom Order Process

## 7. Metadata\_Reference\_Information

7.1 Metadata\_Date: 20010301

7.2 Metadata\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

## 2.2.2 Emergency Response Facilities

#### 1. Identification Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication\_Date: 19970601

Title: HAZUS: Essential Facilities: Emergency Response Facilities Database On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

#### 1.2 Description:

#### Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA and supplemented with data gathered using the electronic phonebook, ProCD. RMS consolidated the disparate data into a single database containing approximately 38,242 sites.

FEMA provided the data to RMS in late 1994 related to emergency operations centers (EOCs). A total of four (4) databases (stateeoc.dbf, localeoc.dbf, femafrcs.dbf and ebsfema.dbf) were provided by FEMA. For every site in the four databases the geographic coordinates were extracted. From the stateeoc.dbf and localeoc.dbf databases nine additional fields were extracted for each site: city, stateabbrvc, zipcode, name, address, eocspacesf, codea, fipsst, countycode. From the femafrcs.dbf database seven additional fields were extracted for each site: city, stateabbrvc, zipcode, station\_id, address\_2, state\_code & county\_cod. From the femafrcs.dbf database five additional fields were extracted for each site: city, stateabbrvc, zipcode, sitename & countycode. From the ebsfema.dbf database three additional fields were extracted for each site: nodename, stateabbrvc, & city. From the femafrcs.dbf database two additional fields were extracted for each site: loc\_name & state.

From the electronic phonebook provided by ProCD Inc, the inventory of police and fire stations were developed. The 1996 version of the electronic phonebook was used in the database development. The address of ProCD, Inc. is 222 Rosewood Drive, Danvers, MA 01923-4520.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with emergency response facilities for a given earthquake scenario. By evaluating this information, the HAZUS user can determine whether the emergency response capabilities of the region are likely to be overwhelmed by the earthquake scenario.

## 1.3 Time\_Period\_of\_Content:

Time Period Information:

Range\_of\_Dates/Times:

Beginning Date: 19900000

Ending Date: police & fire stations: 19960000, EOCs: 19940000

#### 1.4 Status:

Progress: Complete

Maintenance and Update Frequency: As needed

1.5 Spatial Domain

Bounding Coordinates:

West\_Bounding\_Coordinate: -171.432 degrees East\_Bounding\_Coordinate: -64.881 degrees North\_Bounding\_Coordinate: 70.241 degrees South Bounding Coordinate: 17.712 degrees

#### 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS
Theme Keyword: Inventory

Theme\_Keyword: Essential Facilities

Theme Keyword: Emergency Response Facilities

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place\_Keyword: Delaware

Place Keyword: District of Columbia

Place\_Keyword: District of Place\_Keyword: Florida Place\_Keyword: Georgia Place\_Keyword: Hawaii Place\_Keyword: Idaho Place\_Keyword: Illinois Place\_Keyword: Indiana Place\_Keyword: Iowa Place\_Keyword: Kentucky Place\_Keyword: Louisiana

Place\_Keyword: Louisiana Place\_Keyword: Maine Place\_Keyword: Maryland

Place\_Keyword: Massachusetts

Place\_Keyword: Michigan Place\_Keyword: Minnesota Place\_Keyword: Mississippi Place\_Keyword: Missouri Place\_Keyword: Montana Place\_Keyword: Nebraska Place\_Keyword: Nevada

Place\_Keyword: New Hampshire

Place\_Keyword: New Jersey Place\_Keyword: New Mexico

Place\_Keyword: New York

Place\_Keyword: North Carolina Place\_Keyword: North Dakota

Place\_Keyword: Ohio

Place Keyword: Oklahoma

Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania Place\_Keyword: Puerto Rico Place\_Keyword: Rhode Island Place\_Keyword: South Carolina Place\_Keyword: South Dakota Place\_Keyword: Tennessee
Place\_Keyword: Texas
Place\_Keyword: Utah
Place\_Keyword: Vermont
Place\_Keyword: Virgin Islands
Place\_Keyword: Virginia
Place\_Keyword: Washington
Place\_Keyword: West Virginia
Place\_Keyword: Wisconsin
Place\_Keyword: Wyoming

1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact\_Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

#### 2. Data Quality Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

## 3. Spatial\_Data\_Organization\_Information

3.1 Indirect Spatial Reference:

3.2 Direct Spatial Reference Method: Point

3.3 Point\_and\_Vector\_Object\_Information: 38,242

#### 4. Spatial Reference Information

4.1 Horizontal\_Coordinate\_System\_Definition:

## 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

## 5. Entity and Attribute Information:

## 5.2 Overview Description

5.2.1 Entity and Attribute Overview:

The emergency response facilities database file and the individual state and territory files contain 29 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID
Entity\_and\_Attribute\_Detail\_Citation: NAME

Entity\_and\_Attribute\_Detail\_Citation: ADDRESS

Entity\_and\_Attribute\_Detail\_Citation: CITY
Entity\_and\_Attribute\_Detail\_Citation: STATE
Entity\_and\_Attribute\_Detail\_Citation: ZIPCODE

Entity\_and\_Attribute\_Detail\_Citation: CONTACT

Entity\_and\_Attribute\_Detail\_Citation: PHONE Entity\_and\_Attribute\_Detail\_Citation: CLASS

Entity and Attribute Detail Citation: MAPPING

Entity\_and\_Attribute\_Detail\_Citation: BLDG\_TYPE

Entity\_and\_Attribute\_Detail\_Citation: DESIGNLVL

Entity\_and\_Attribute\_Detail\_Citation: BIAS

Entity\_and\_Attribute\_Detail\_Citation: FOUNDATION

Entity\_and\_Attribute\_Detail\_Citation: YEAR\_B Entity\_and\_Attribute\_Detail\_Citation: COST

Entity and Attribute Detail Citation: BU PWR

Entity and Attribute Detail Citation: STORIES

Entity\_and\_Attribute\_Detail\_Citation: NUM\_TRUCKS

Entity\_and\_Attribute\_Detail\_Citation: AREA

Entity\_and\_Attribute\_Detail\_Citation: CAPACITY

Entity\_and\_Attribute\_Detail\_Citation: KITCHEN

Entity\_and\_Attribute\_Detail\_Citation: ELEVAT

Entity\_and\_Attribute\_Detail\_Citation: LAT Entity and Attribute Detail Citation: LONG

Entity\_and\_Attribute\_Detail\_Citation: GEORES

Entity and Attribute Detail Citation: COUNTY

Entity\_and\_Attribute\_Detail\_Citation: COMMENT

Entity and Attribute Detail Citation: ID

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

## 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

## 7. Metadata\_Reference\_Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:

Contact Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

#### 2.2.3 Schools

#### 1. Identification Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication\_Date: 19970601

Title: HAZUS: Essential Facilities: Schools Database

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

#### 1.2 Description:

#### Abstract:

Risk Management Solutions, Inc. (RMS) using the 1996 version of the electronic phonebook, ProCD, developed this database. Based on a screening process using SIC codes, the names and addresses of the schools were extracted from the electronic phonebook. A proprietary geocoding application was then used to assign geographical coordinates to each school based on the address.

The contact information for ProCD, Inc. is 222 Rosewood Drive, Danvers, MA 01923-4520.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with schools for a given earthquake scenario. By evaluating this information in conjunction with estimates of temporary shelter requirements, the HAZUS user can determine whether the earthquake scenario may overwhelm the sheltering capabilities of the region.

#### 1.3 Time Period of Content:

Time\_Period\_Information:

Range of Dates/Times:

Beginning\_Date: 19950000 Ending Date: 19960000

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

#### 1.5 Spatial Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -174.430 degrees East\_Bounding\_Coordinate: -64.713 degrees North\_Bounding\_Coordinate: 70.567 degrees South\_Bounding\_Coordinate: 17.697 degrees

## 1.6 Keywords:

## Theme:

Theme\_Keyword: HAZUS Theme\_Keyword: Inventory

Theme Keyword: Essential Facilities

Theme Keyword: Schools

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona

Place\_Keyword: Arkansas

Place\_Keyword: California

Place Keyword: Colorado

Place\_Keyword: Connecticut

Place\_Keyword: Delaware

Place\_Keyword: District of Columbia

Place\_Keyword: Florida

Place Keyword: Georgia

Place Keyword: Hawaii

Place Keyword: Idaho

Place\_Keyword: Illinois

Place\_Keyword: Indiana

Place\_Keyword: Iowa

Place Keyword: Kansas

Place\_Keyword: Kentucky

Place Keyword: Louisiana

Place Keyword: Maine

Place\_Keyword: Maryland

Place\_Keyword: Massachusetts

Place Keyword: Michigan

Place\_Keyword: Minnesota

Place\_Keyword: Mississippi

Place Keyword: Missouri

Place\_Keyword: Montana

Place Keyword: Nebraska

Place Keyword: Nevada

Place Keyword: New Hampshire

Place\_Keyword: New Jersey

Place\_Keyword: New Mexico

Place\_Keyword: New York

Place\_Keyword: North Carolina

Place\_Keyword: North Dakota

Place\_Keyword: Ohio

Place Keyword: Oklahoma

Place\_Keyword: Oregon

Place Keyword: Pennsylvania

Place\_Keyword: Puerto Rico

Place Keyword: Rhode Island

Place\_Keyword: South Carolina

Place Keyword: South Dakota

Place\_Keyword: Tennessee

Place Keyword: Texas

Place Keyword: Utah

Place\_Keyword: Vermont

Place Keyword: Virgin Islands

Place\_Keyword: Virginia

Place\_Keyword: Washington

Place\_Keyword: West Virginia

Place\_Keyword: Wisconsin

Place\_Keyword: Wyoming

1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact\_Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

#### 2. Data Quality Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

## 3. Spatial\_Data\_Organization\_Information

3.1 Indirect Spatial Reference:

3.2 Direct\_Spatial\_Reference\_Method: Point

3.3 Point and Vector Object Information: 132,869

## 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

## 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

## 5. Entity\_and\_Attribute\_Information:

5.2 Overview Description

5.2.1 Entity and Attribute Overview:

The schools database file and the individual state and territory files contain 30 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID
Entity and Attribute Detail Citation: NAME

Entity and Attribute Detail Citation: ADDRESS

Entity and Attribute Detail Citation: CITY Entity and Attribute Detail Citation: STATE Entity and Attribute Detail Citation: ZIPCODE Entity\_and\_Attribute\_Detail\_Citation: DISTRICT Entity and Attribute Detail Citation: CONTACT Entity and Attribute Detail Citation: PHONE Entity and Attribute Detail Citation: CLASS Entity and Attribute Detail Citation: MAPPING Entity and Attribute Detail Citation: BLDG TYPE Entity and Attribute Detail Citation: DESIGNLVL Entity and Attribute Detail Citation: BIAS Entity and Attribute Detail Citation: FOUNDATION Entity\_and\_Attribute\_Detail\_Citation: YEAR\_B Entity and Attribute Detail Citation: COST Entity and Attribute Detail Citation: BU PWR Entity and Attribute Detail Citation: FUNCTION Entity and Attribute Detail Citation: NUM STUDNT Entity and Attribute Detail Citation: AREA Entity and Attribute Detail Citation: SHLT CAP Entity and Attribute Detail Citation: KITCHEN Entity and Attribute Detail Citation: ELEVAT Entity\_and\_Attribute\_Detail\_Citation: LAT Entity and Attribute Detail Citation: LONG Entity\_and\_Attribute\_Detail\_Citation: GEORES Entity and Attribute Detail Citation: COUNTY Entity and Attribute Detail Citation: COMMENT Entity and Attribute Detail Citation: ID

## 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

## 6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

#### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

#### 6.5 Custom Order Process

## 7. Metadata\_Reference\_Information

7.1 Metadata\_Date: 20010301

7.2 Metadata\_Contact:
Contact Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact\_Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

## 2.3 High Potential Loss Facilities

### 2.3.1 Dams

## 1. Identification\_Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: High Potential Loss Facilities: Dams Database

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

## 1.2 Description:

#### Abstract:

High potential loss facilities are facilities that are likely to cause heavy earthquake losses if damaged. High potential loss (HPL) facilities include nuclear power plants, dams, and some military installations.

The 1995-96 update of the National Inventory of Dams was prepared by Venture Computing Group, Inc., Troy, New York, under a contract to FEMA. There are 74,301 dams in this database. Risk Management Solutions, Inc. (RMS) processed this National Inventory of Dams for HAZUS.

#### Purpose:

This data is used to identify the dams with the potential for damage from a given earthquake scenario. By overlaying the dams on the severe ground-shaking map, the HAZUS user can determine which of the dams may need immediate inspection.

#### 1.3 Time Period of Content:

Time\_Period\_Information:

Range of Dates/Times:

Beginning\_Date: unknown Ending Date: 19960000

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

#### 1.5 Spatial Domain

Bounding Coordinates:

West\_Bounding\_Coordinate: -215.300 East\_Bounding\_Coordinate: -64.790 North\_Bounding\_Coordinate: 71.267 South\_Bounding\_Coordinate: 13.358

#### 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS
Theme Keyword: Inventory

Theme\_Keyword: High Potential Loss Facilities

Theme Keyword: Dams

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama

Place\_Keyword: Alaska

Place\_Keyword: Arizona

Place\_Keyword: Arkansas

Place\_Keyword: California

Place Keyword: Colorado

Place\_Keyword: Connecticut

Place Keyword: Delaware

Place Keyword: District of Columbia

Place\_Keyword: Florida

Place Keyword: Georgia

Place\_Keyword: Hawaii

Place\_Keyword: Idaho

Place\_Keyword: Illinois

Place Keyword: Indiana

Place\_Keyword: Iowa

Place Keyword: Kansas

Place Keyword: Kentucky

Place Keyword: Louisiana

Place\_Keyword: Maine

Place Keyword: Maryland

Place\_Keyword: Massachusetts

Place\_Keyword: Michigan

Place Keyword: Minnesota

Place\_Keyword: Mississippi

Place Keyword: Missouri

Place Keyword: Montana

Place Keyword: Nebraska

Place\_Keyword: Nevada

Place\_Keyword: New Hampshire

Place\_Keyword: New Jersey

Place Keyword: New Mexico

Place\_Keyword: New York

Place\_Keyword: North Carolina

Place Keyword: North Dakota

Place\_Keyword: Ohio

Place Keyword: Oklahoma

Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania

Place\_Keyword: Puerto Rico

Place\_Keyword: Rhode Island

Place\_Keyword: South Carolina

Place Keyword: South Dakota

Place Keyword: Tennessee

Place\_Keyword: Texas

Place Keyword: Utah

Place\_Keyword: Vermont

Place\_Keyword: Virgin Islands

Place\_Keyword: Virginia

Place Keyword: Washington

Place\_Keyword: West Virginia

Place\_Keyword: Wisconsin Place\_Keyword: Wyoming

1.7 Access\_Constraints: None1.8 Use\_Constraints: None1.9 Point of Contact

Contact\_Information:

Contact Person Primary:

Contact Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

### 2. Data Quality Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

## 3. Spatial\_Data\_Organization\_Information

3.1 Indirect Spatial Reference:

3.2 Direct Spatial Reference Method: Point

3.3 Point and Vector Object Information: 74,301

#### 4. Spatial Reference Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

#### 5. Entity and Attribute Information:

5.2 Overview\_Description

5.2.1 Entity and Attribute Overview:

The dams database file and the individual state and territory files contain 31 fields.

Entity and Attribute Detail\_Citation: ID Entity and Attribute Detail Citation: DAM NAME Entity and Attribute Detail Citation: OWNER Entity and Attribute Detail Citation: CLASS Entity and Attribute Detail Citation: COUNTYNAME Entity and Attribute Detail Citation: RIVER Entity\_and\_Attribute\_Detail\_Citation: NEAR\_CITY Entity and Attribute Detail Citation: DIST CITY Entity and Attribute Detail Citation: PURPOSE Entity and Attribute Detail Citation: YEAR COMPL Entity and Attribute Detail Citation: DAM LENGTH Entity and Attribute Detail Citation: DAM HEIGHT Entity\_and\_Attribute\_Detail\_Citation: STRUCT\_HGT Entity and Attribute Detail Citation: HYDR HGT Entity and Attribute Detail Citation: MAX DISCH Entity\_and\_Attribute\_Detail\_Citation: MAX\_STOR Entity and Attribute Detail Citation: NORM STOR Entity\_and\_Attribute\_Detail\_Citation: SURF\_AREA Entity and Attribute Detail Citation: DRAIN AREA Entity and Attribute Detail Citation: HAZARD Entity and Attribute Detail Citation: EAP Entity and Attribute Detail Citation: SPILL TYPE Entity and Attribute Detail Citation: SPILL WDTH Entity\_and\_Attribute\_Detail\_Citation: VOLUME Entity\_and\_Attribute\_Detail\_Citation: COST Entity and Attribute Detail Citation: PRIMARY SR Entity and Attribute Detail Citation: LAT Entity and Attribute Detail Citation: LONG Entity and Attribute Detail Citation: COUNTY Entity and Attribute Detail Citation: NAT ID Entity and Attribute Detail Citation: COMMENT Entity and Attribute Detail Citation: ID

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

## 6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

#### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

# 6.5 Custom Order Process N/A

#### 7. Metadata\_Reference\_Information

7.1 Metadata\_Date: 20010301

7.2 Metadata\_Contact:

Contact Information:

Contact Person Primary:

Contact Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact Electronic Mail Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

#### 2.3.2 Levees

No Default HAZUS Data is available. Only a placeholder is provided.

### 2.3.3 Nuclear Power Plants

#### 1. Identification Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: High Potential Loss Facilities: Nuclear Power Plants Database On-line Linkage: <a href="http://www.fema.gov/hazus/">http://www.nibs.org/hazus/</a>, <a href="http://www.nibs.org/hazus/">http://www.nibs.org/hazus/</a>,

http://www.nrc.gov/NRC/REACTOR/GEOSPATIAL/lvsites.html.

## 1.2 Description:

Abstract:

The database was developed from data compiled by the U.S. Nuclear Regulatory Commission on nuclear reactors. There are 70 power plants in this database. Risk Management Solutions, Inc. (RMS) processed this database into HAZUS.

## Purpose:

This data is useful in assessing the potential threat these facilities may represent to life and property.

3 Time Period of Content:

Time Period Information:

Range\_of\_Dates/Times:

Beginning\_Date: unknown Ending Date: unknown

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

## 1.5 Spatial\_Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -122.885 East\_Bounding\_Coordinate: -69.697 North\_Bounding\_Coordinate: 46.283 South\_Bounding\_Coordinate: 25.434

### 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory

Theme Keyword: High Potential Loss Facilities

Theme\_Keyword: Nuclear Power Plants
Theme Keyword: Nuclear Reactors

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado

Place\_Keyword: Connecticut
Place\_Keyword: Delaware

Place Keyword: District of Columbia

Place\_Keyword: Florida
Place\_Keyword: Georgia
Place\_Keyword: Hawaii
Place\_Keyword: Idaho
Place\_Keyword: Illinois
Place\_Keyword: Indiana
Place Keyword: Iowa

Place\_Keyword: Kansas
Place Keyword: Kentucky

Place\_Keyword: Louisiana

Place\_Keyword: Maine

Place\_Keyword: Maryland

Place Keyword: Massachusetts

Place\_Keyword: Michigan

Place\_Keyword: Minnesota

Place\_Keyword: Mississippi Place\_Keyword: Missouri

Place\_Keyword: Montana

Place\_Keyword: Nebraska

Place\_Keyword: Nevada

Place\_Keyword: New Hampshire

Place\_Keyword: New Jersey
Place\_Keyword: New Mexico
Place\_Keyword: New York
Place\_Keyword: North Carolina
Place\_Keyword: North Dakota
Place\_Keyword: Ohio

Place\_Keyword: Oklahoma
Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania Place\_Keyword: Puerto Rico Place\_Keyword: Rhode Island Place\_Keyword: South Carolina

Place\_Keyword: South Dakota Place\_Keyword: Tennessee

Place\_Keyword: Texas Place\_Keyword: Utah

Place\_Keyword: Vermont

Place\_Keyword: Virgin Islands

Place\_Keyword: Virginia

Place\_Keyword: Washington Place\_Keyword: West Virginia

Place\_Keyword: Wisconsin

Place\_Keyword: Wyoming

1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

### 2. Data\_Quality\_Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

#### 3. Spatial Data Organization Information

3.1 Indirect\_Spatial\_Reference:

3.2 Direct\_Spatial\_Reference\_Method: Point

3.3 Point and Vector Object Information: 70

#### 4. Spatial Reference Information

4.1 Horizontal Coordinate System Definition:

## 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

#### 4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical Coordinate System Definition: Not Applicable

## 5. Entity\_and\_Attribute\_Information:

5.2 Overview\_Description

5.2.1 Entity and Attribute Overview:

The nuclear power plant database file and the individual state and territory files contain 24 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID Entity and Attribute Detail Citation: NAME Entity and Attribute Detail Citation: ADDRESS Entity and Attribute Detail Citation: CITY Entity and Attribute Detail Citation: STATE Entity and Attribute Detail Citation: ZIPCODE Entity and Attribute Detail Citation: OWNER Entity and Attribute Detail Citation: CONTACT Entity\_and\_Attribute\_Detail\_Citation: PHONE Entity\_and\_Attribute\_Detail\_Citation: CLASS Entity and Attribute Detail Citation: BLDG TYPE Entity and Attribute Detail Citation: DESIGNLVL Entity\_and\_Attribute\_Detail\_Citation: BIAS Entity and Attribute Detail Citation: FOUNDATION Entity\_and\_Attribute\_Detail\_Citation: YEAR\_B Entity and Attribute Detail Citation: COST Entity and Attribute Detail Citation: CAPACITY Entity and Attribute Detail Citation: ELEVAT Entity and Attribute Detail Citation: LAT Entity\_and\_Attribute\_Detail\_Citation: LONG Entity\_and\_Attribute\_Detail\_Citation: GEORES Entity and Attribute Detail Citation: COUNTY Entity and Attribute Detail Citation: COMMENT Entity and Attribute Detail Citation: ID

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center Contact Address:

Address\_Type: mailing address Address: P.O. Box 2012 City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form downloaded from the **FEMA** website can be (http://www.fema.gov/hazus/hazus6c.htm). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

#### 7. Metadata\_Reference\_Information

7.1 Metadata\_Date: 20010301

7.2 Metadata Contact:

Contact Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

#### 2.3.4 Hazardous Materials Sites

## 1. Identification Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Hazardous Materials Sites Database

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/, http://www.epa.gov/.

1.2 Description:

Abstract:

Hazardous materials are those chemicals, reagents or substances that exhibit physical or health hazards, whether the materials are in a usable or waste state. The scale, and hence the consequences, of hazardous materials releases can vary from very small, such as a gallon of paint falling off of shelves, to regional, such as release of toxic chemicals from a processing plant. Most hazardous materials incidents have immediately led to human casualties only in cases where explosions have occurred. Non-explosive hazardous materials incidents, which comprise the vast majority, typically have led to contamination of the environment and temporary health consequences to human beings. Hazardous materials releases can also lead to fires. With specific reference to earthquake caused hazardous materials incidents, the data thus far indicate that there have been no human casualties. The consequences of these incidents have been fires and contamination of the environment, and have led to economic impacts because of the response and clean-up requirements.

Risk Management Solutions, Inc. (RMS), using the 1996 version of the Environmental Protection Agency (EPA) Hazardous Materials database, processed this database for HAZUS.

The contact information for EPA is: Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460. Tel.: (202) 260-2090

#### Purpose:

This data is used to identify the hazardous materials sites with the potential for damage and release from a given earthquake scenario. By overlaying the hazardous materials sites on the severe ground-shaking map, the HAZUS user can determine which of the sites may need immediate inspection.

## 1.3 Time\_Period\_of\_Content:

Time Period Information:

Range\_of\_Dates/Times:

Beginning\_Date: unknown Ending Date: 19960000

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

## 1.5 Spatial\_Domain

Bounding Coordinates:

West\_Bounding\_Coordinate: -159.739 East\_Bounding\_Coordinate: -66.984 North\_Bounding\_Coordinate: 64.823 South Bounding Coordinate: 19.204

#### 1.6 Keywords:

Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory

Theme\_Keyword: Hazardous Materials

## Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place Keyword: Colorado

Place\_Keyword: Connecticut

Place Keyword: Delaware

Place Keyword: District of Columbia

Place\_Keyword: Florida

Place\_Keyword: Georgia

Place\_Keyword: Hawaii

Place\_Keyword: Idaho

Place\_Keyword: Illinois

Place Keyword: Indiana

Place Keyword: Iowa

Place\_Keyword: Kansas

Place\_Keyword: Kentucky

Place\_Keyword: Louisiana

Place Keyword: Maine

Place\_Keyword: Maryland

Place Keyword: Massachusetts

Place Keyword: Michigan

Place Keyword: Minnesota

Place\_Keyword: Mississippi

Place Keyword: Missouri

Place\_Keyword: Montana

Place\_Keyword: Nebraska

Place Keyword: Nevada

Place\_Keyword: New Hampshire

Place Keyword: New Jersey

Place Keyword: New Mexico

Place Keyword: New York

Place Keyword: North Carolina

Place Keyword: North Dakota

Place\_Keyword: Ohio

Place Keyword: Oklahoma

Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania

Place Keyword: Puerto Rico

Place Keyword: Rhode Island

Place Keyword: South Carolina

Place\_Keyword: South Dakota

Place Keyword: Tennessee

Place\_Keyword: Texas

Place Keyword: Utah

Place Keyword: Vermont

Place Keyword: Virgin Islands

Place Keyword: Virginia

Place\_Keyword: Washington

Place Keyword: West Virginia

Place\_Keyword: Wisconsin

Place\_Keyword: Wyoming

1.7 Access\_Constraints: None

1.8 Use Constraints: None

1.9 Point\_of\_Contact

#### Contact Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

# 2. Data\_Quality\_Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

## 3. Spatial\_Data\_Organization\_Information

3.1 Indirect\_Spatial\_Reference:

3.2 Direct\_Spatial\_Reference\_Method: Point

3.3 Point\_and\_Vector\_Object\_Information: 668,041

## 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

## 4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical Coordinate System Definition: Not Applicable

# 5. Entity\_and\_Attribute\_Information:

#### 5.2 Overview\_Description

5.2.1 Entity and Attribute Overview:

The hazardous materials sites database file and the individual state and territory files contain 27 fields.

```
Entity and Attribute Detail Citation: ID
Entity and Attribute Detail Citation: NAME
Entity and Attribute Detail Citation: ADDRESS
Entity and Attribute Detail Citation: CITY
Entity and Attribute Detail Citation: STATE
Entity and Attribute Detail Citation: ZIPCODE
Entity_and_Attribute_Detail_Citation: CONTACT
Entity and Attribute Detail Citation: PHONE
Entity and Attribute Detail Citation: CAS
Entity and Attribute Detail Citation: CHEM NAME
Entity and Attribute Detail Citation: CHEM QUANT
Entity and Attribute Detail Citation: SIC
Entity_and_Attribute_Detail_Citation: CLASS
Entity and Attribute Detail Citation: BLDG TYPE
Entity and Attribute Detail Citation: DESIGNLVL
Entity_and_Attribute_Detail_Citation: BIAS
Entity and Attribute Detail Citation: FOUNDATION
Entity_and_Attribute_Detail_Citation: YEAR_B
Entity and Attribute Detail Citation: EPA ID
Entity and Attribute Detail Citation: PER AMNT
Entity and Attribute Detail Citation: ELEVAT
Entity and Attribute Detail Citation: LAT
Entity and Attribute Detail Citation: LONG
Entity_and_Attribute_Detail_Citation: GEORES
Entity_and_Attribute_Detail_Citation: COUNTY
Entity and Attribute Detail Citation: COMMENT
Entity and Attribute Detail Citation: ID
```

#### 6. Distribution Information

## 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

#### 6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

## 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

#### 6.5 Custom Order Process

N/A

# 7. Metadata\_Reference\_Information

7.1 Metadata\_Date: 20010301

7.2 Metadata\_Contact:
 Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact\_Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

# **Transportation Systems**

# 3.1 Highway Systems

# 3.1.1 Bridges

#### 1. Identification Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication\_Date: 19970601

Title: HAZUS: Transportation Systems: Highway Bridge Database

On-line Linkage:

http://www.fema.gov/hazus/, http://www.nibs.org/hazus/, http://www.fhwa.dot.gov/.

## 1.2 Description:

#### Abstract:

Highway bridges are the most critical components of a transportation network. They are also the most susceptible to damage during earthquakes. Risk Management Solutions, Inc. (RMS), using the 1996 version of the National Bridge Inventory (NBI) database, processed 527,261 bridges from this database into HAZUS.

The contact information for NBI is The Federal Highway Administration, 400 7<sup>th</sup> Street, SW, Washington, DC 20590.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with bridges for a given earthquake scenario. By evaluating this information, the HAZUS user can determine how the earthquake scenario may affect the transportation network of the region.

#### 1.3 Time Period of Content:

Time Period Information:

Range\_of\_Dates/Times:

Beginning\_Date: unknown Ending Date: 19960000

#### 1.4 Status:

Progress: Complete

Maintenance and Update Frequency: As needed

# 1.5 Spatial\_Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -174.14 East\_Bounding\_Coordinate: -67.075 North\_Bounding\_Coordinate: 69.098 South Bounding Coordinate: 19.065

# 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Lifelines
Theme Keyword: Highways

#### Theme Keyword: Transportation

## Theme\_Keyword: Bridges

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place\_Keyword: Delaware

Place Keyword: District of Columbia

Place\_Keyword: Florida
Place\_Keyword: Georgia
Place\_Keyword: Hawaii
Place\_Keyword: Idaho
Place\_Keyword: Illinois

Place\_Keyword: Indiana Place\_Keyword: Iowa Place\_Keyword: Kansas

Place\_Keyword: Kentucky

Place\_Keyword: Louisiana Place Keyword: Maine

Place\_Keyword: Maryland

Place\_Keyword: Massachusetts

Place\_Keyword: Michigan Place\_Keyword: Minnesota

Place\_Keyword: Mississippi Place Keyword: Missouri

Place\_Keyword: Montana
Place\_Keyword: Nebraska
Place Keyword: Nevada

Place\_Keyword: New Hampshire

Place\_Keyword: New Jersey Place\_Keyword: New Mexico

Place Keyword: New York

Place\_Keyword: North Carolina

Place\_Keyword: North Dakota

Place\_Keyword: Ohio

Place\_Keyword: Oklahoma

Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania

Place\_Keyword: Puerto Rico

Place\_Keyword: Rhode Island Place\_Keyword: South Carolina

Place\_Keyword: South Dakota

Place\_Keyword: Tennessee

Place\_Keyword: Texas

Place\_Keyword: Utah
Place\_Keyword: Vermont
Place\_Keyword: Virgin Islands
Place\_Keyword: Virginia
Place\_Keyword: Washington
Place\_Keyword: West Virginia
Place\_Keyword: Wisconsin
Place\_Keyword: Wyoming

1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact\_Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

# 2. Data\_Quality\_Information

2.1 Attribute Accuracy: Unknown

2.2 Logical Consistency Report: Unknown

2.3 Completeness\_Report: Unknown2.4 Positional Accuracy: Unknown

2.5 Lineage: Unknown

# 3. Spatial Data Organization Information

3.1 Indirect Spatial Reference:

3.2 Direct\_Spatial\_Reference\_Method: Point

3.3 Point and Vector Object Information: 527,261

## 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

## 5. Entity and Attribute Information:

#### 5.2 Overview Description

5.2.1 Entity\_and\_Attribute\_Overview:

The highway bridge database file and the individual state and territory files contain 27 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID
Entity\_and\_Attribute\_Detail\_Citation: NAME

Entity and Attribute Detail Citation: OWNER

Entity\_and\_Attribute\_Detail\_Citation: CLASS

Entity\_and\_Attribute\_Detail\_Citation: TYPE

Entity\_and\_Attribute\_Detail\_Citation: WIDTH

Entity and Attribute Detail Citation: LENMAXSPAN

Entity and Attribute Detail Citation: LENGTH

Entity\_and\_Attribute\_Detail\_Citation: NUM\_SP

Entity and Attribute Detail Citation: ANGLE

Entity\_and\_Attribute\_Detail\_Citation: SEAT\_L

Entity\_and\_Attribute\_Detail\_Citation: SEAT\_W

Entity\_and\_Attribute\_Detail\_Citation: YEAR\_B Entity and Attribute Detail Citation: YEAR\_R

Entity and Attribute Detail Citation: PIER

Entity\_and\_Attribute\_Detail\_Citation: FOUNDATION

Entity\_and\_Attribute\_Detail\_Citation: SCOUR

Entity\_and\_Attribute\_Detail\_Citation: TRAFFIC

Entity\_and\_Attribute\_Detail\_Citation: TRAF\_INDEX

Entity and Attribute Detail Citation: CONDITION

Entity\_and\_Attribute\_Detail\_Citation: COST

Entity\_and\_Attribute\_Detail\_Citation: ELEVAT

Entity\_and\_Attribute\_Detail\_Citation: LAT

Entity\_and\_Attribute\_Detail\_Citation: LONG

Entity\_and\_Attribute\_Detail\_Citation: COUNTY Entity and Attribute Detail Citation: COMMENT

Entity and Attribute Detail Citation: ID

# 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

#### 6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

## 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

# 6.5 Custom Order Process N/A

#### 7. Metadata Reference Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:
Contact Information:

Contact Person Primary:

Contact Person: Philip Schneider

Contact Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

#### 3.1.2 Roads

#### 1. Identification Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Transportation Systems: Highway Roads Database

On-line Linkage:

http://www.fema.gov/hazus/, http://www.nibs.org/hazus/,

http://www.census.gov/, http://www.wessex.com/wessex/index.cfm

# 1.2 Description:

#### Abstract:

Highway roads are based on the street TIGER files. The TIGER Line Files were originally created using two primary sources: the Census Bureau's 1980 GBF/DIME files and the USGS DLGs (U.S. Geological Survey Digital Line Graphs). The GBF/DIME files had extensive coverage and excellent attribute information in urban areas but little coverage in rural areas. The USGS DLGs had coverage for the entire country but did not have the same attribution. The Census Bureau decided to use a combination of both datasets to create the TIGER Line Files. Risk Management Solutions, Inc. (RMS) extracted the major roads database for HAZUS.

The contact information for Street Tiger files is: WESSEX, 11 Lafayette St., Lebanon, NH 03766.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with roads for a given earthquake scenario. By evaluating this information in conjunction with

estimates of damage to bridges and tunnels, the HAZUS user can determine which of the highway links may not be accessible.

```
1.3 Time Period of Content:
   Time Period Information:
           Range of Dates/Times:
                  Beginning_Date: unknown
                  Ending Date: 19960000
1.4 Status:
   Progress: Complete
   Maintenance and Update Frequency: As needed
1.5 Spatial Domain
   Bounding Coordinates:
          West_Bounding_Coordinate: -159.887
          East Bounding Coordinate: -64.567
          North_Bounding_Coordinate: 65.809
           South Bounding Coordinate: 17.689
1.6 Keywords:
   Theme:
           Theme Keyword: HAZUS
           Theme Keyword: Inventory
          Theme Keyword: Lifelines
           Theme Keyword: Highways
           Theme Keyword: Roads
   Place:
          Place_Keyword: USA
          Place Keyword: Alabama
          Place Keyword: Alaska
          Place Keyword: Arizona
          Place Keyword: Arkansas
          Place Keyword: California
          Place Keyword: Colorado
          Place Keyword: Connecticut
          Place Keyword: Delaware
          Place Keyword: District of Columbia
          Place Keyword: Florida
          Place_Keyword: Georgia
          Place Keyword: Hawaii
          Place Keyword: Idaho
          Place Keyword: Illinois
          Place Keyword: Indiana
          Place Keyword: Iowa
          Place_Keyword: Kansas
          Place Keyword: Kentucky
          Place Keyword: Louisiana
          Place Keyword: Maine
          Place Keyword: Maryland
          Place Keyword: Massachusetts
```

Place Keyword: Michigan

Place Keyword: Minnesota Place\_Keyword: Mississippi Place Keyword: Missouri Place\_Keyword: Montana Place Keyword: Nebraska Place\_Keyword: Nevada Place Keyword: New Hampshire Place Keyword: New Jersey Place Keyword: New Mexico Place Keyword: New York Place\_Keyword: North Carolina Place\_Keyword: North Dakota Place\_Keyword: Ohio Place Keyword: Oklahoma Place\_Keyword: Oregon Place Keyword: Pennsylvania Place Keyword: Puerto Rico Place Keyword: Rhode Island Place\_Keyword: South Carolina Place Keyword: South Dakota Place\_Keyword: Tennessee Place\_Keyword: Texas Place\_Keyword: Utah Place\_Keyword: Vermont Place Keyword: Virgin Islands Place\_Keyword: Virginia Place Keyword: Washington Place\_Keyword: West Virginia Place Keyword: Wisconsin Place\_Keyword: Wyoming 1.7 Access Constraints: None 1.8 Use\_Constraints: None 1.9 Point\_of\_Contact Contact Information: Contact\_Person\_Primary: Contact\_Person: Philip Schneider Contact\_Address: Address\_Type: mailing and physical address Address: National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700 City: Washington State: D.C. Postal Code: 20005 Contact Voice Telephone: 202-289-7800 Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

# 2. Data\_Quality\_Information

2.1 Attribute Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness\_Report: Unknown2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

## 3. Spatial\_Data\_Organization\_Information

- 3.1 Indirect Spatial Reference:
- 3.2 Direct\_Spatial\_Reference\_Method: Line
- 3.3 Point\_and\_Vector\_Object\_Information: 111,497

# 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

#### 4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical Coordinate System Definition: Not Applicable

#### 5. Entity and Attribute Information:

5.2 Overview Description

5.2.1 Entity\_and\_Attribute\_Overview:

The highway road database file and the individual state and territory files contain 15 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID
Entity\_and\_Attribute\_Detail\_Citation: NAME

Entity and Attribute Detail Citation: OWNER

Entity and Attribute Detail Citation: CLASS

Entity\_and\_Attribute\_Detail\_Citation: NUM\_LAN

Entity\_and\_Attribute\_Detail\_Citation: PVMNT

Entity and Attribute Detail Citation: WIDTH

Entity\_and\_Attribute\_Detail\_Citation: LENGTH

Entity\_and\_Attribute\_Detail\_Citation: TRAFFIC

Entity and Attribute Detail Citation: CAPACITY

Entity\_and\_Attribute\_Detail\_Citation: COST

Entity and Attribute Detail Citation: ELEVAT

Entity and Attribute Detail Citation: COUNTY

Entity\_and\_Attribute\_Detail\_Citation: COMMENT

Entity and Attribute Detail Citation: ID

#### 6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012 Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

## 7. Metadata\_Reference\_Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW: Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

#### 3.1.3 Tunnels

# 1. Identification\_Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication\_Date: 19970601

Title: HAZUS: Transposrtation Systems: Highway Tunnel Database

On-line Linkage:

http://www.fema.gov/hazus/, http://www.nibs.org/hazus/, http://www.fhwa.dot.gov/.

1.2 Description:

Abstract:

Highway tunnels are more susceptible to damage from ground failure than ground shaking during earthquakes. Risk Management Solutions, Inc. (RMS), using the 1996 version of the

National Bridge Inventory (NBI) database, extracted 226 tunnels from this database into HAZUS.

The contact information for NBI is The Federal Highway Administration, 400 7<sup>th</sup> Street, SW, Washington, DC 20590.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with tunnels for a given earthquake scenario.

#### 1.3 Time Period of Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: unknown Ending\_Date: 19960000

# 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

#### 1.5 Spatial Domain

Bounding\_Coordinates:

West Bounding Coordinate: -159.667 degrees

East\_Bounding\_Coordinate: -71.553 North\_Bounding\_Coordinate: 48.840 South\_Bounding\_Coordinate: 19.728

## 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Lifelines
Theme\_Keyword: Highways
Theme\_Keyword: Transportation
Theme\_Keyword: Tunnels

## Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place\_Keyword: Delaware

Place Keyword: District of Columbia

Place\_Keyword: Florida Place\_Keyword: Georgia Place\_Keyword: Hawaii Place\_Keyword: Idaho Place\_Keyword: Illinois Place\_Keyword: Indiana Place\_Keyword: Iowa

Place Keyword: Kansas Place\_Keyword: Kentucky Place Keyword: Louisiana Place\_Keyword: Maine Place Keyword: Maryland Place\_Keyword: Massachusetts Place Keyword: Michigan Place Keyword: Minnesota Place Keyword: Mississippi Place Keyword: Missouri Place\_Keyword: Montana Place\_Keyword: Nebraska Place\_Keyword: Nevada Place Keyword: New Hampshire Place\_Keyword: New Jersey Place Keyword: New Mexico Place Keyword: New York Place Keyword: North Carolina Place Keyword: North Dakota Place Keyword: Ohio Place\_Keyword: Oklahoma Place\_Keyword: Oregon Place Keyword: Pennsylvania Place\_Keyword: Puerto Rico Place Keyword: Rhode Island Place Keyword: South Carolina Place Keyword: South Dakota Place Keyword: Tennessee Place Keyword: Texas Place\_Keyword: Utah Place Keyword: Vermont Place\_Keyword: Virgin Islands Place\_Keyword: Virginia Place Keyword: Washington Place\_Keyword: West Virginia Place Keyword: Wisconsin Place\_Keyword: Wyoming 1.7 Access Constraints: None 1.8 Use\_Constraints: None 1.9 Point of Contact Contact Information: Contact Person Primary: Contact\_Person: Philip Schneider Contact Address: Address\_Type: mailing and physical address Address: National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700 City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

## 2. Data\_Quality\_Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional Accuracy: Unknown

2.5 Lineage: Unknown

#### 3. Spatial Data Organization Information

- 3.1 Indirect Spatial Reference:
- 3.2 Direct\_Spatial\_Reference\_Method: Point
- 3.3 Point\_and\_Vector\_Object\_Information: 226

# 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

#### 4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

#### 5. Entity and Attribute Information:

- 5.2 Overview Description
  - 5.2.1 Entity\_and\_Attribute\_Overview:

The highway tunnel database file and the individual state and territory files contain 17 fields.

Entity and Attribute Detail Citation: ID

Entity and Attribute Detail Citation: NAME

Entity\_and\_Attribute\_Detail\_Citation: OWNER

Entity\_and\_Attribute\_Detail\_Citation: CLASS

Entity and Attribute Detail Citation: TYPE

Entity and Attribute Detail Citation: WIDTH

Entity and Attribute Detail Citation: LENGTH

Entity and Attribute Detail Citation: YEAR B

Entity\_and\_Attribute\_Detail\_Citation: TRAFFIC

Entity\_and\_Attribute\_Detail\_Citation: CAPACITY

Entity and Attribute Detail Citation: COST

Entity and Attribute Detail Citation: ELEVAT

Entity and Attribute Detail Citation: LAT

Entity\_and\_Attribute\_Detail\_Citation: LONG

Entity\_and\_Attribute\_Detail\_Citation: COUNTY

Entity\_and\_Attribute\_Detail\_Citation: COMMENT

Entity\_and\_Attribute\_Detail\_Citation: ID\_

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

## 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

#### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

## 7. Metadata\_Reference\_Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact Electronic Mail Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

# 3.2 Railway Systems

# 3.2.1 Bridges

## 1. Identification\_Information:

1.1 Citation:

#### Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication\_Date: 19970601

Title: HAZUS: Transportation Systems: Railway Bridge Database

On-line Linkage:

http://www.fema.gov/hazus/, http://www.nibs.org/hazus/, http://www.fhwa.dot.gov/.

## 1.2 Description:

#### Abstract:

Railway bridges are susceptible to damage during earthquakes. Risk Management Solutions, Inc. (RMS), using the 1996 version of the National Bridge Inventory (NBI) database, processed 1,277 bridges from this database into HAZUS.

# Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with railway bridges for a given earthquake scenario. By evaluating this information, the HAZUS user can determine how the earthquake scenario may affect the railway network of the region.

# 1.3 Time\_Period\_of\_Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: unknown Ending Date: unknown

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

## 1.5 Spatial\_Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -135.206 East\_Bounding\_Coordinate: -67.429 North\_Bounding\_Coordinate: 59.604 South Bounding Coordinate: 25.777

#### 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Lifelines
Theme\_Keyword: Railways
Theme\_Keyword: Transportation
Theme Keyword: Bridges

# Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place Keyword: Delaware

Place Keyword: District of Columbia

Place\_Keyword: Florida

Place\_Keyword: Georgia

Place\_Keyword: Hawaii

Place\_Keyword: Idaho

Place Keyword: Illinois

Place\_Keyword: Indiana

Place Keyword: Iowa

Place Keyword: Kansas

Place Keyword: Kentucky

Place Keyword: Louisiana

Place\_Keyword: Maine

Place\_Keyword: Maryland

Place\_Keyword: Massachusetts

Place Keyword: Michigan

Place\_Keyword: Minnesota

Place\_Keyword: Mississippi

Place\_Keyword: Missouri

Place Keyword: Montana

Place\_Keyword: Nebraska

Place Keyword: Nevada

Place\_Keyword: New Hampshire

Place\_Keyword: New Jersey

Place Keyword: New Mexico

Place\_Keyword: New York

Place\_Keyword: North Carolina

Place\_Keyword: North Dakota

Place Keyword: Ohio

Place\_Keyword: Oklahoma

Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania

Place Keyword: Puerto Rico

Place Keyword: Rhode Island

Place\_Keyword: South Carolina

Place Keyword: South Dakota

Place\_Keyword: Tennessee

Place Keyword: Texas

Place\_Keyword: Utah

Place Keyword: Vermont

Place\_Keyword: Virgin Islands

Place Keyword: Virginia

Place\_Keyword: Washington

Place Keyword: West Virginia

Place Keyword: Wisconsin

Place\_Keyword: Wyoming

1.7 Access Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact\_Information:

Contact Person Primary:

Contact\_Person: Philip Schneider

#### Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

## 2. Data\_Quality\_Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical Consistency Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

## 3. Spatial\_Data\_Organization\_Information

3.1 Indirect\_Spatial\_Reference:

3.2 Direct\_Spatial\_Reference\_Method: Point

3.3 Point\_and\_Vector\_Object\_Information: 1,277

## 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

# 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

#### 5. Entity and Attribute Information:

5.2 Overview\_Description

5.2.1 Entity and Attribute Overview:

The railway bridge database file and the individual state and territory files contain 27 fields. Entity and Attribute Detail Citation: ID

```
Entity and Attribute Detail_Citation: NAME
Entity and Attribute Detail Citation: OWNER
Entity and Attribute Detail Citation: CLASS
Entity and Attribute Detail Citation: TYPE
Entity and Attribute Detail Citation: WIDTH
Entity and Attribute Detail Citation: LENMAXSPAN
Entity_and_Attribute_Detail_Citation: LENGTH
Entity and Attribute Detail Citation: NUM SP
Entity and Attribute Detail Citation: ANGLE
Entity and Attribute Detail Citation: SEAT L
Entity and Attribute Detail Citation: SEAT W
Entity and Attribute Detail Citation: YEAR B
Entity_and_Attribute_Detail_Citation: YEAR_R
Entity and Attribute Detail Citation: PIER
Entity and Attribute Detail Citation: FOUNDATION
Entity_and_Attribute_Detail_Citation: SCOUR
Entity and Attribute Detail Citation: TRAFFIC
Entity_and_Attribute_Detail_Citation: TRAF_INDEX
Entity and Attribute Detail Citation: CONDITION
Entity and Attribute Detail Citation: COST
Entity and Attribute Detail Citation: ELEVAT
Entity and Attribute Detail Citation: LAT
Entity and Attribute Detail Citation: LONG
Entity_and_Attribute_Detail_Citation: COUNTY
Entity and Attribute Detail Citation: COMMENT
Entity and Attribute Detail Citation: ID
```

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

## 6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

## 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

#### 6.5 Custom Order Process

N/A

# 7. Metadata\_Reference\_Information

7.1 Metadata\_Date: 20010301

#### 7.2 Metadata Contact:

Contact Information:

Contact Person Primary:

Contact Person: Philip Schneider

Contact Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact Electronic Mail Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

## 3.2.2 Tracks

#### 1. Identification Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Transportation Systems: Railway Tracks

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/,

http://www.wessex.com/wessex/index.cfm.

#### 1.2 Description:

Abstract:

Railway Tracks are based on the TIGER files. Risk Management Solutions, Inc. (RMS) extracted the tracks database for HAZUS.

The contact information for Tiger files is: WESSEX, 11 Lafayette St., Lebanon, NH 03766.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with railway tracks for a given earthquake scenario. By evaluating this information in conjunction with estimates of damage to bridges and tunnels, the HAZUS user can determine which of the railway links may not be accessible.

1.3 Time Period of Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date unknown Ending Date: 19960000

1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

1.5 Spatial\_Domain

#### Bounding Coordinates:

West\_Bounding\_Coordinate: 151.161 East\_Bounding\_Coordinate: -66.755 North\_Bounding\_Coordinate: 64.947 South\_Bounding\_Coordinate: 20.805

# 1.6 Keywords:

## Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Lifelines

Theme\_Keyword: Transportation

Theme\_Keyword: Railway Theme\_Keyword: Tracks

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place\_Keyword: Delaware

Place Keyword: District of Columbia

Place\_Keyword: Bistrict of Place\_Keyword: Florida Place\_Keyword: Georgia Place\_Keyword: Hawaii Place\_Keyword: Idaho Place\_Keyword: Illinois Place\_Keyword: Indiana Place\_Keyword: Iowa Place\_Keyword: Kansas Place\_Keyword: Kentucky Place\_Keyword: Louisiana Place Keyword: Maine

Place\_Keyword: Maryland Place\_Keyword: Massachusetts

Place\_Keyword: Michigan
Place\_Keyword: Minnesota
Place\_Keyword: Mississippi
Place\_Keyword: Missouri
Place\_Keyword: Montana
Place\_Keyword: Nebraska
Place\_Keyword: Nevada

Place\_Keyword: New Hampshire Place\_Keyword: New Jersey Place\_Keyword: New Mexico Place\_Keyword: New York Place\_Keyword: North Carolina

```
Place_Keyword: North Dakota
```

Place\_Keyword: Ohio

Place\_Keyword: Oklahoma

Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania

Place\_Keyword: Puerto Rico

Place\_Keyword: Rhode Island

Place\_Keyword: South Carolina

Place\_Keyword: South Dakota

Place\_Keyword: Tennessee

Place\_Keyword: Texas

Place\_Keyword: Utah

Place\_Keyword: Vermont

Place\_Keyword: Virgin Islands

Place\_Keyword: Virginia

Place\_Keyword: Washington

Place\_Keyword: West Virginia

Place\_Keyword: Wisconsin

Place\_Keyword: Wyoming

# 1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact\_Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

#### 2. Data Quality Information

2.1 Attribute Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness Report: Unknown

2.4 Positional Accuracy: Unknown

2.5 Lineage: Unknown

#### 3. Spatial\_Data\_Organization\_Information

3.1 Indirect Spatial Reference:

3.2 Direct\_Spatial\_Reference\_Method: Line

3.3 Point\_and\_Vector\_Object\_Information: 261,804

# 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

# 5. Entity\_and\_Attribute\_Information:

## 5.2 Overview Description

5.2.1 Entity\_and\_Attribute\_Overview:

The railway track database file and the individual state and territory files contain 12 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID
Entity\_and\_Attribute\_Detail\_Citation: NAME
Entity\_and\_Attribute\_Detail\_Citation: OWNER
Entity\_and\_Attribute\_Detail\_Citation: CLASS
Entity\_and\_Attribute\_Detail\_Citation: NUM\_TRA
Entity\_and\_Attribute\_Detail\_Citation: TRAFFIC
Entity\_and\_Attribute\_Detail\_Citation: LENGTH
Entity\_and\_Attribute\_Detail\_Citation: COST
Entity\_and\_Attribute\_Detail\_Citation: ELEVAT
Entity\_and\_Attribute\_Detail\_Citation: COUNTY
Entity\_and\_Attribute\_Detail\_Citation: COMMENT
Entity\_and\_Attribute\_Detail\_Citation: ID

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD
Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

#### 6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

# 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

# 6.5 Custom Order Process N/A

#### 7. Metadata Reference Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:
Contact Information:

Contact Person Primary:

Contact Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

# 3.2.3 Railway Tunnels

## 1. Identification Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Transposrtation Systems: Railway Tunnel Database

On-line Linkage:

http://www.fema.gov/hazus/, http://www.nibs.org/hazus/, http://www.fhwa.dot.gov/.

## 1.2 Description:

Abstract:

Railway tunnels are more susceptible to damage from ground failure than from ground shaking during earthquakes. Risk Management Solutions, Inc. (RMS), using the 1996 version of the National Bridge Inventory (NBI) database, processed 384 tunnels into HAZUS.

The contact information for NBI is The Federal Highway Administration, 400  $7^{\text{th}}$  Street, SW, Washington, DC 20590.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with tunnels for a given earthquake scenario.

1.3 Time\_Period\_of\_Content:

Time\_Period\_Information:

Range of Dates/Times:

Beginning\_Date: unknown Ending\_Date: 19960000

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

## 1.5 Spatial\_Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -155.469 East Bounding Coordinate: -70.893 North\_Bounding\_Coordinate: 48.967 South Bounding Coordinate: 20.094

## 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS Theme\_Keyword: Inventory Theme Keyword: Lifelines Theme\_Keyword: Railways Theme Keyword: Transportation

## Theme Keyword: Tunnels

#### Place:

Place Keyword: USA Place Keyword: Alabama Place\_Keyword: Alaska Place\_Keyword: Arizona Place Keyword: Arkansas Place\_Keyword: California Place Keyword: Colorado Place Keyword: Connecticut Place Keyword: Delaware

Place Keyword: District of Columbia

Place Keyword: Florida Place\_Keyword: Georgia Place Keyword: Hawaii Place\_Keyword: Idaho Place\_Keyword: Illinois Place Keyword: Indiana Place Keyword: Iowa Place Keyword: Kansas Place\_Keyword: Kentucky Place Keyword: Louisiana Place\_Keyword: Maine Place Keyword: Maryland

Place Keyword: Massachusetts Place Keyword: Michigan Place Keyword: Minnesota Place\_Keyword: Mississippi

Place Keyword: Missouri Place\_Keyword: Montana Place\_Keyword: Nebraska Place\_Keyword: Nevada

Place Keyword: New Hampshire Place\_Keyword: New Jersey

Place\_Keyword: New Mexico
Place\_Keyword: New York

Place\_Keyword: North Carolina Place\_Keyword: North Dakota

Place Keyword: Ohio

Place\_Keyword: Oklahoma

Place\_Keyword: Oregon

Place Keyword: Pennsylvania

Place\_Keyword: Puerto Rico

Place Keyword: Rhode Island

Place\_Keyword: South Carolina

Place\_Keyword: South Dakota

Place\_Keyword: Tennessee

Place Keyword: Texas

Place\_Keyword: Utah

Place Keyword: Vermont

Place\_Keyword: Virgin Islands

Place Keyword: Virginia

Place\_Keyword: Washington

Place\_Keyword: West Virginia

Place\_Keyword: Wisconsin

Place\_Keyword: Wyoming

1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact\_Information:

Contact Person Primary:

Contact\_Person: Philip Schneider

Contact\_Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

# 2. Data\_Quality\_Information

2.1 Attribute Accuracy: Unknown

2.2 Logical Consistency Report: Unknown

2.3 Completeness Report: Unknown

2.4 Positional Accuracy: Unknown

2.5 Lineage: Unknown

#### 3. Spatial\_Data\_Organization\_Information

3.1 Indirect Spatial Reference:

3.2 Direct Spatial Reference Method: Point

3.3 Point\_and\_Vector\_Object\_Information: 384

#### 4. Spatial Reference Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

# 5. Entity\_and\_Attribute\_Information:

5.2 Overview Description

5.2.1 Entity and Attribute Overview:

The railway tunnel database file and the individual state and territory files contain 16 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID

Entity\_and\_Attribute\_Detail\_Citation: NAME

Entity and Attribute Detail Citation: OWNER

Entity\_and\_Attribute\_Detail\_Citation: CLASS

Entity and Attribute Detail Citation: TYPE

Entity\_and\_Attribute\_Detail\_Citation: WIDTH

Entity\_and\_Attribute\_Detail\_Citation: LENGTH

Entity\_and\_Attribute\_Detail\_Citation: YEAR\_B

Entity\_and\_Attribute\_Detail\_Citation: TRAFFIC

Entity\_and\_Attribute\_Detail\_Citation: COST

Entity\_and\_Attribute\_Detail\_Citation: ELEVAT

Entity\_and\_Attribute\_Detail\_Citation: LAT

Entity\_and\_Attribute\_Detail\_Citation: LONG
Entity\_and\_Attribute\_Detail\_Citation: COUNTY

Entity and Attribute Detail Citation: COMMENT

Entity and Attribute Detail Citation: ID

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this

product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

#### 7. Metadata\_Reference\_Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:

Contact Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact Electronic Mail Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

# 3.2.4 Railway Facilities

## 1. Identification\_Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Transportation Systems: Railway Facilities

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

1.2 Description:

Abstract:

The database was developed from data provided by FEMA for the entire United States. The attribute information provided for each facility included: name, address, geographical coordinates, and year built. Risk Management Solutions, Inc. (RMS) processed this database for HAZUS.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with railway facilities for a given earthquake scenario. By evaluating this information in conjunction with estimates of damage to railway tracks and bridges, the HAZUS user can determine whether the railway network will be affected.

#### 1.3 Time Period of Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: unknown Ending\_Date: 19960000

#### 1.4 Status:

Progress: Complete

Maintenance and Update Frequency: As needed

#### 1.5 Spatial Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -157.023
East\_Bounding\_Coordinate: -68.019
North\_Bounding\_Coordinate 61.743
South Bounding Coordinate: 20.842

## 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme Keyword: Lifelines

Theme\_Keyword: Railway Systems Theme\_Keyword: Railway Facility

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut

Place Keyword: Delaware

Place\_Keyword: District of Columbia

Place\_Keyword: Bistrict of
Place\_Keyword: Florida
Place\_Keyword: Georgia
Place\_Keyword: Hawaii
Place\_Keyword: Idaho
Place\_Keyword: Illinois
Place\_Keyword: Indiana
Place\_Keyword: Iowa
Place\_Keyword: Kansas
Place\_Keyword: Kentucky
Place\_Keyword: Louisiana
Place\_Keyword: Maine

Place\_Keyword: Maryland

Place\_Keyword: Massachusetts

Place\_Keyword: Michigan Place\_Keyword: Minnesota Place\_Keyword: Mississippi Place\_Keyword: Missouri Place\_Keyword: Montana Place\_Keyword: Nebraska

Place Keyword: Nevada

Place\_Keyword: New Hampshire

Place\_Keyword: New Jersey

Place\_Keyword: New Mexico

Place\_Keyword: New York

Place\_Keyword: North Carolina

Place\_Keyword: North Dakota

Place\_Keyword: Ohio

Place\_Keyword: Oklahoma

Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania

Place Keyword: Puerto Rico

Place\_Keyword: Rhode Island

Place Keyword: South Carolina

Place\_Keyword: South Dakota

Place Keyword: Tennessee

Place\_Keyword: Texas

Place Keyword: Utah

Place\_Keyword: Vermont

Place\_Keyword: Virgin Islands

Place Keyword: Virginia

Place\_Keyword: Washington

Place Keyword: West Virginia

Place Keyword: Wisconsin

Place Keyword: Wyoming

1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

# 2. Data\_Quality\_Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical Consistency Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional Accuracy: Unknown

2.5 Lineage: Unknown

## 3. Spatial\_Data\_Organization\_Information

- 3.1 Indirect Spatial Reference:
- 3.2 Direct\_Spatial\_Reference\_Method: Point
- 3.3 Point\_and\_Vector\_Object\_Information: 3,218

#### 4. Spatial Reference Information

4.1 Horizontal Coordinate System Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

#### 4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical Coordinate System Definition: Not Applicable

#### 5. Entity\_and\_Attribute\_Information:

5.2 Overview Description

5.2.1 Entity and Attribute Overview:

The railway facility database file and the individual state and territory files contain 26 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID

Entity and Attribute Detail Citation: NAME

Entity and Attribute Detail Citation: ADDRESS

Entity and Attribute Detail Citation: CITY

Entity and Attribute Detail Citation: STATE

Entity\_and\_Attribute\_Detail\_Citation: ZIPCODE

Entity\_and\_Attribute\_Detail\_Citation: OWNER

Entity\_and\_Attribute\_Detail\_Citation: CONTACT

Entity and Attribute Detail Citation: PHONE

Entity and Attribute Detail Citation: CLASS

Entity and Attribute Detail Citation: FUNCTION

Entity\_and\_Attribute\_Detail\_Citation: BLDG\_TYPE

Entity and Attribute Detail Citation: DESIGNLVL

Entity and Attribute Detail Citation: FOUNDATION

Entity and Attribute Detail Citation: BU PWR

Entity\_and\_Attribute\_Detail\_Citation: ANCHOR

Entity\_and\_Attribute\_Detail\_Citation: YEAR\_B

Entity\_and\_Attribute\_Detail\_Citation: TRAFFIC

Entity\_and\_Attribute\_Detail\_Citation: COST Entity\_and\_Attribute\_Detail\_Citation: ELEVAT

Entity and Attribute Detail Citation: LAT

Entity and Attribute Detail Citation: LONG

Entity\_and\_Attribute\_Detail\_Citation: GEORES

Entity and Attribute Detail Citation: COUNTY

Entity\_and\_Attribute\_Detail\_Citation: COMMENT

Entity\_and\_Attribute\_Detail\_Citation: ID\_

## 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

#### Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

#### 6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

#### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

#### 6.5 Custom Order Process

N/A

## 7. Metadata\_Reference\_Information

7.1 Metadata\_Date: 20010301

7.2 Metadata\_Contact:

Contact Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

# 3.3 Light Rail Systems

# 3.2.1 Bridges

No Default HAZUS Data is available. Only a placeholder is provided.

## 3.3.2 Tracks

No Default HAZUS Data is available. Only a placeholder is provided.

## 3.3.3 Tunnels

No Default HAZUS Data is available. Only a placeholder is provided.

#### 3.3.4 Facilities

No Default HAZUS Data is available. Only a placeholder is provided.

# 3.4 Bus Systems

## 3.4.1 Facilities

## 1. Identification\_Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication\_Date: 19970601

Title: HAZUS: Transportation Systems: Bus Facilities Database

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

## 1.2 Description:

Abstract:

The database was developed from data provided by FEMA for the entire United States. The attribute information provided for each facility included: name, address, geographical coordinates, and year built. Risk Management Solutions, Inc. (RMS) processed this database for HAZUS.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with bus facilities for a given earthquake scenario.

#### 1.3 Time Period of Content:

Time Period Information:

Range of Dates/Times:

Beginning\_Date: unknown Ending Date: 19960000

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

## 1.5 Spatial\_Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -155.067 East\_Bounding\_Coordinate: --68.021 North\_Bounding\_Coordinate: 48.554 South\_Bounding\_Coordinate: 19.710

# 1.6 Keywords:

Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Lifelines
Theme\_Keyword: Transportation
Theme Keyword: Bus Facility

#### Place:

Place\_Keyword: USA

Place\_Keyword: Alabama

Place\_Keyword: Alaska

Place\_Keyword: Arizona

Place\_Keyword: Arkansas

Place Keyword: California

Place Keyword: Colorado

Place Keyword: Connecticut

Place\_Keyword: Delaware

Place Keyword: District of Columbia

Place\_Keyword: Florida

Place Keyword: Georgia

Place\_Keyword: Hawaii

Place Keyword: Idaho

Place Keyword: Illinois

Place Keyword: Indiana

Place Keyword: Iowa

Place Keyword: Kansas

Place\_Keyword: Kentucky

Place\_Keyword: Louisiana

Place Keyword: Maine

Place\_Keyword: Maryland

Place Keyword: Massachusetts

Place Keyword: Michigan

Place Keyword: Minnesota

Place\_Keyword: Mississippi

Place Keyword: Missouri

Place\_Keyword: Montana

Place Keyword: Nebraska

Place\_Keyword: Nevada

Place\_Keyword: New Hampshire

Place\_Keyword: New Jersey

Place\_Keyword: New Mexico

Place Keyword: New York

Place\_Keyword: North Carolina

Place Keyword: North Dakota

Place\_Keyword: Ohio

Place Keyword: Oklahoma

Place\_Keyword: Oregon

Place Keyword: Pennsylvania

Place\_Keyword: Puerto Rico

Place\_Keyword: Rhode Island

Place\_Keyword: South Carolina

Place\_Keyword: South Dakota

Place\_Keyword: Tennessee

Place\_Keyword: Texas

Place Keyword: Utah

Place\_Keyword: Vermont

Place\_Keyword: Virgin Islands Place\_Keyword: Virginia Place\_Keyword: Washington Place\_Keyword: West Virginia Place\_Keyword: Wisconsin Place\_Keyword: Wyoming

1.7 Access\_Constraints: None1.8 Use Constraints: None

1.9 Point\_of\_Contact
Contact Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact\_Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

### 2. Data Quality Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical Consistency Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional Accuracy: Unknown

2.5 Lineage: Unknown

#### 3. Spatial Data Organization Information

3.1 Indirect Spatial Reference:

3.2 Direct\_Spatial\_Reference\_Method: Point3.3 Point and Vector Object Information: 953

### 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical Coordinate System Definition: Not Applicable

#### 5. Entity and Attribute Information:

### 5.2 Overview Description

5.2.1 Entity\_and\_Attribute\_Overview:

The bus facility database file and the individual state and territory files contain 26 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID

Entity and Attribute Detail Citation: NAME

Entity and Attribute Detail Citation: ADDRESS

Entity and Attribute Detail Citation: CITY

Entity and Attribute Detail Citation: STATE

Entity and Attribute Detail Citation: ZIPCODE

Entity and Attribute Detail Citation: OWNER

Entity and Attribute Detail Citation: CONTACT

Entity\_and\_Attribute\_Detail\_Citation: PHONE

Entity and Attribute Detail Citation: CLASS

Entity and Attribute Detail Citation: FUNCTION

Entity\_and\_Attribute\_Detail\_Citation: BLDG\_TYPE

Entity and Attribute Detail Citation: DESIGNLVL

Entity\_and\_Attribute\_Detail\_Citation: FOUNDATION

Entity\_and\_Attribute\_Detail\_Citation: BU\_PWR

Entity\_and\_Attribute\_Detail\_Citation: ANCHOR

Entity\_and\_Attribute\_Detail\_Citation: YEAR\_B

Entity and Attribute Detail Citation: TRAFFIC

Entity and Attribute Detail Citation: COST

Entity\_and\_Attribute\_Detail\_Citation: ELEVAT

Entity and Attribute Detail Citation: LAT

Entity and Attribute Detail Citation: LONG

Entity and Attribute Detail Citation: GEORES

Entity and Attribute Detail Citation: COUNTY

Entity and Attribute Detail Citation: COMMENT

Entity\_and\_Attribute\_Detail\_Citation: ID\_

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

### 6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

#### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

# 6.5 Custom Order Process N/A

### 7. Metadata Reference Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:
Contact Information:

Contact Person Primary:

Contact Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

### 3.5 Port Systems

### 3.5.1 Port Facilities

### 1. Identification\_Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Transportation Lifelines: Port Facilities Database

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

1.2 Description:

Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA. FEMA provided a single database containing approximately 3,767 sites to RMS in late 1994. RMS converted to database into a format that was compatible with the HAZUS software.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with port facilities for a given earthquake scenario. The damage estimates are subsequently used to compute the estimated cost to repair or replace the damaged port facilities.

1.3 Time Period of Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: Unknown Ending Date: Unknown

1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

1.5 Spatial\_Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -166.575 East\_Bounding\_Coordinate: -64.750 North\_Bounding\_Coordinate: 61.24 South Bounding Coordinate: 17.70

1.6 Keywords:

Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Transportation
Theme\_Keyword: Lifelines
Theme Keyword: Port Facilities

Theme\_Keyword: Ports

Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place Keyword: Delaware

Place\_Keyword: District of Columbia

Place\_Keyword: Florida
Place\_Keyword: Georgia
Place\_Keyword: Hawaii
Place\_Keyword: Idaho
Place\_Keyword: Illinois
Place\_Keyword: Indiana
Place\_Keyword: Iowa
Place\_Keyword: Kansas

Place\_Keyword: Kentucky Place\_Keyword: Louisiana

Place\_Keyword: Maine

Place\_Keyword: Maryland

Place\_Keyword: Massachusetts

Place\_Keyword: Michigan Place\_Keyword: Minnesota

Place\_Keyword: Mississippi

Place\_Keyword: Missouri

Place\_Keyword: Montana

Place\_Keyword: Nebraska

Place\_Keyword: Nevada

Place\_Keyword: New Hampshire

Place\_Keyword: New Jersey

Place\_Keyword: New Mexico

Place\_Keyword: New York

Place\_Keyword: North Carolina Place\_Keyword: North Dakota

Place Keyword: Ohio

Place\_Keyword: Oklahoma

Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania

Place\_Keyword: Puerto Rico

Place\_Keyword: Rhode Island

Place\_Keyword: South Carolina

Place\_Keyword: South Dakota

Place\_Keyword: Tennessee

Place\_Keyword: Texas

Place\_Keyword: Utah

Place Keyword: Vermont

Place\_Keyword: Virgin Islands

Place Keyword: Virginia

Place\_Keyword: Washington

Place\_Keyword: West Virginia

Place\_Keyword: Wisconsin

Place\_Keyword: Wyoming

1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact\_Information:

Contact Person Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

### 2. Data\_Quality\_Information

2.1 Attribute Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

### 3. Spatial\_Data\_Organization\_Information

3.1 Indirect\_Spatial\_Reference:

3.2 Direct Spatial Reference Method: Point

3.3 Point and Vector Object Information: 3,767

#### 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

### 5. Entity\_and\_Attribute\_Information:

### 5.2 Overview Description

5.2.1 Entity and Attribute Overview:

The port facilities database file and the individual state and territory files contain 29 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID

Entity\_and\_Attribute\_Detail\_Citation: PORT\_ID

Entity\_and\_Attribute\_Detail\_Citation: NAME

Entity\_and\_Attribute\_Detail\_Citation: ADDRESS

Entity and Attribute Detail Citation: CITY

Entity and Attribute Detail Citation: STATE

Entity and Attribute Detail Citation: ZIPCODE

Entity and Attribute Detail Citation: OWNER

Entity and Attribute Detail Citation: CONTACT

Entity and Attribute Detail Citation: PHONE

Entity and Attribute Detail Citation: CLASS

Entity and Attribute Detail Citation: FUNCTION

Entity and Attribute Detail Citation: BLDG TYPE

Entity and Attribute Detail Citation: DESIGNLVL

Entity and Attribute Detail Citation: FOUNDATION

Entity and Attribute Detail Citation: BU PWR

Entity\_and\_Attribute\_Detail\_Citation: ANCHOR

Entity and Attribute Detail Citation: YEAR B

Entity and Attribute Detail Citation: CAPACITY

Entity\_and\_Attribute\_Detail\_Citation: BERTHS

Entity and Attribute Detail Citation: CRANE

Entity and Attribute Detail Citation: COST

Entity and Attribute Detail Citation: ELEVAT

Entity and Attribute Detail Citation: LAT

Entity\_and\_Attribute\_Detail\_Citation: LONG

Entity and Attribute Detail Citation: GEORES

Entity and Attribute Detail Citation: COUNTY

Entity\_and\_Attribute\_Detail\_Citation: COMMENT

Entity\_and\_Attribute\_Detail\_Citation: ID\_

#### 6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

### 7. Metadata\_Reference\_Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

## 3.6 Ferry Systems

### 3.6.1 Ferry Facilities

### 1. Identification Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Transportation Lifelines: Ferry Facilities Database

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

### 1.2 Description:

#### Abstract:

Currently this database is empty in HAZUS. A blank database is provided to allow HAZUS users to input ferry facility information for their region.

### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with ferry facilities for a given earthquake scenario. The damage estimates are subsequently used to compute the estimated cost to repair or replace the damaged ferry facilities.

### 1.3 Time Period of Content:

Time Period Information:

Range\_of\_Dates/Times:

Beginning\_Date: Unknown Ending\_Date: Unknown

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

#### 1.5 Spatial Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: East\_Bounding\_Coordinate:

 $North\_Bounding\_Coordinate:$ 

South Bounding Coordinate:

### 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS Theme\_Keyword: Inventory

Theme Keyword: Transportation Lifelines

Theme\_Keyword: Ferry Facilities

Theme Keyword: Ferries

### Place:

Place\_Keyword: None

1.7 Access Constraints: None

1.8 Use\_Constraints: None

### 1.9 Point\_of\_Contact

#### Contact Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

#### Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

### 2. Data\_Quality\_Information

- 2.1 Attribute\_Accuracy: Unknown
- 2.2 Logical\_Consistency\_Report: Unknown
- 2.3 Completeness\_Report: Unknown
- 2.4 Positional\_Accuracy: Unknown
- 2.5 Lineage: Unknown

### 3. Spatial\_Data\_Organization\_Information

- 3.1 Indirect Spatial Reference:
- 3.2 Direct\_Spatial\_Reference\_Method: Point
- 3.3 Point\_and\_Vector\_Object\_Information:

### 4. Spatial\_Reference\_Information

- 4.1 Horizontal\_Coordinate\_System\_Definition:
  - 4.1.1 Geographic:
  - 4.1.4 Geodetic\_Model:
- 4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

### 5. Entity\_and\_Attribute\_Information:

- 5.2 Overview Description
  - 5.2.1 Entity and Attribute Overview:

The ferry facilities database file and the individual state and territory files contain 26 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID

Entity\_and\_Attribute\_Detail\_Citation: NAME

Entity and Attribute Detail Citation: ADDRESS

Entity and Attribute Detail Citation: CITY

Entity and Attribute Detail Citation: STATE

Entity and Attribute Detail Citation: ZIPCODE

Entity and Attribute Detail Citation: OWNER

Entity and Attribute Detail Citation: CONTACT

Entity and Attribute Detail Citation: PHONE

Entity and Attribute Detail Citation: CLASS

Entity\_and\_Attribute\_Detail\_Citation: FUNCTION

Entity and Attribute Detail Citation: BLDG TYPE

Entity and Attribute Detail Citation: DESIGNLVL

Entity and Attribute Detail Citation: FOUNDATION

Entity and Attribute Detail Citation: BU PWR

Entity and Attribute Detail Citation: ANCHOR

Entity\_and\_Attribute\_Detail\_Citation: YEAR\_B

Entity and Attribute Detail Citation: TRAFFIC

Entity and Attribute Detail Citation: COST

Entity and Attribute Detail Citation: ELEVAT

Entity and Attribute Detail Citation: LAT

Entity and Attribute Detail Citation: LONG

Entity and Attribute Detail Citation: GEORES

Entity and Attribute Detail Citation: COUNTY

Entity and Attribute Detail Citation: COMMENT

Entity\_and\_Attribute\_Detail\_Citation: ID\_

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

#### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

#### 7. Metadata Reference Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:

Contact Information:

Contact Person Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

### 3.7 Airport Systems

### 3.7.1 Airport Facilities

#### 1. Identification Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication\_Date: 19970601

Title: HAZUS: Transportation Lifelines: Airport Facilities Database

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

### 1.2 Description:

#### Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA. FEMA provided a single database containing 16,930 airports sites to RMS in late 1994. RMS converted to database into a format that was compatible with the HAZUS software.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with airport facilities for a given earthquake scenario. The damage estimates are subsequently used to compute the estimated cost to repair or replace the damaged airport facilities.

### 1.3 Time\_Period\_of\_Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: Unknown Ending Date: Unknown

### 1.4 Status:

Progress: Complete

Maintenance and Update Frequency: As needed

### 1.5 Spatial Domain

Bounding Coordinates:

West\_Bounding\_Coordinate: -176.648 East\_Bounding\_Coordinate: -64.799 North\_Bounding\_Coordinate: 71.339 South Bounding Coordinate: 17.704

### 1.6 Keywords:

Theme:

Theme\_Keyword: HAZUS Theme\_Keyword: Inventory

Theme Keyword: Transportation Lifelines

Theme\_Keyword: Airport Facilities

Theme Keyword: Airports

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place Keyword: Delaware

Place Keyword: District of Columbia

Place\_Keyword: Florida

Place\_Keyword: Georgia

Place\_Keyword: Hawaii

Place\_Keyword: Idaho

Place\_Keyword: Illinois

Place Keyword: Indiana

Place Keyword: Iowa

Place Keyword: Kansas

Place Keyword: Kentucky

Place\_Keyword: Louisiana

Place\_Keyword: Maine

Place\_Keyword: Maryland

Place Keyword: Massachusetts

Place\_Keyword: Michigan

Place Keyword: Minnesota

Place Keyword: Mississippi

Place Keyword: Missouri

Place Keyword: Montana

Place Keyword: Nebraska

Place\_Keyword: Nevada

Place\_Keyword: New Hampshire

Place Keyword: New Jersey

Place\_Keyword: New Mexico

Place Keyword: New York

Place\_Keyword: North Carolina

Place Keyword: North Dakota

Place\_Keyword: Ohio

Place Keyword: Oklahoma

Place\_Keyword: Oregon

Place Keyword: Pennsylvania

Place\_Keyword: Puerto Rico

Place\_Keyword: Rhode Island

Place Keyword: South Carolina

Place Keyword: South Dakota

Place Keyword: Tennessee

Place\_Keyword: Texas

Place\_Keyword: Utah

- idoo\_itoyword. Otdii

Place\_Keyword: Vermont

Place\_Keyword: Virgin Islands

Place\_Keyword: Virginia

Place Keyword: Washington

Place\_Keyword: West Virginia

Place\_Keyword: Wisconsin

Place Keyword: Wyoming

1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

### 2. Data\_Quality\_Information

2.1 Attribute Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness Report: Unknown

2.4 Positional Accuracy: Unknown

2.5 Lineage: Unknown

### 3. Spatial Data Organization Information

3.1 Indirect\_Spatial\_Reference:

3.2 Direct Spatial Reference Method: Point

3.3 Point\_and\_Vector\_Object\_Information: 16,930

### 4. Spatial\_Reference\_Information

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

### 5. Entity\_and\_Attribute\_Information:

### 5.2 Overview\_Description

5.2.1 Entity\_and\_Attribute\_Overview:

The airport facilities database file and the individual state and territory files contain 29 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID

Entity\_and\_Attribute\_Detail\_Citation: ARPT\_ID

Entity and Attribute Detail Citation: NAME

Entity and Attribute Detail Citation: ADDRESS

Entity and Attribute Detail Citation: CITY

Entity and Attribute Detail Citation: STATE

Entity and Attribute Detail Citation: ZIPCODE

Entity and Attribute Detail Citation: OWNER

Entity and Attribute Detail Citation: CONTACT

Entity\_and\_Attribute\_Detail\_Citation: PHONE

Entity and Attribute Detail Citation: CLASS Entity and Attribute Detail Citation: FUNCTION Entity and Attribute Detail Citation: BLDG TYPE Entity\_and\_Attribute\_Detail\_Citation: DESIGNLVL Entity and Attribute Detail Citation: FOUNDATION Entity and Attribute Detail Citation: BU PWR Entity and Attribute Detail Citation: ANCHOR Entity and Attribute Detail Citation: YEAR B Entity and Attribute Detail Citation: FLIGHTS Entity and Attribute Detail Citation: PASSENGERS Entity and Attribute Detail Citation: CARGO Entity and Attribute Detail Citation: COST Entity\_and\_Attribute\_Detail\_Citation: ELEVAT Entity and Attribute Detail Citation: LAT Entity\_and\_Attribute\_Detail\_Citation: LONG Entity and Attribute Detail Citation: GEORES Entity and Attribute Detail Citation: COUNTY Entity and Attribute Detail Citation: COMMENT Entity and Attribute Detail Citation: ID

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

#### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

#### 7. Metadata Reference Information

7.1 Metadata\_Date: 20010301

7.2 Metadata\_Contact:

Contact\_Information:

Contact Person Primary:

Contact Person: Philip Schneider

Contact\_Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact Electronic Mail Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

### 3.7.2 Airport Runways

### 1. Identification Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication\_Date: 19970601

Title: HAZUS: Transportation Lifelines: Airport Runways Database

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

1.2 Description:

Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA. FEMA provided a single database containing 16,930 airports to RMS in late 1994. RMS converted to database into a format that was compatible with the HAZUS software.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with airport runways for a given earthquake scenario. The damage estimates are subsequently used to compute the estimated cost to repair or replace the damaged airport runways.

1.3 Time Period of Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: Unknown Ending Date: 19920000

1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

1.5 Spatial\_Domain

Bounding Coordinates:

West\_Bounding\_Coordinate: -176.648 East\_Bounding\_Coordinate: -64.799 North\_Bounding\_Coordinate: 71.339 South\_Bounding\_Coordinate: 17.704

1.6 Keywords:

Theme:

Theme\_Keyword: HAZUS Theme\_Keyword: Inventory

Theme\_Keyword: Transportation Lifelines

Theme\_Keyword: Airport Runways

Theme\_Keyword: Airports
Theme\_Keyword: Runways

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place Keyword: Colorado

Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place\_Keyword: Delaware

Place\_Keyword: District of Columbia

Place\_Keyword: Florida Place\_Keyword: Georgia Place\_Keyword: Hawaii Place\_Keyword: Idaho Place\_Keyword: Illinois

Place\_Keyword: Indiana Place\_Keyword: Iowa Place\_Keyword: Kansas

Place\_Keyword: Kentucky Place\_Keyword: Louisiana

Place\_Keyword: Maine
Place Keyword: Maryland

Place\_Keyword: Massachusetts

Place\_Keyword: Michigan
Place\_Keyword: Minnesota
Place\_Keyword: Mississippi
Place\_Keyword: Missouri
Place\_Keyword: Montana
Place\_Keyword: Nebraska

Place\_Keyword: Nevada

Place\_Keyword: New Hampshire Place\_Keyword: New Jersey Place\_Keyword: New Mexico Place Keyword: New York

Place\_Keyword: North Carolina Place Keyword: North Dakota

Place\_Keyword: Ohio

Place\_Keyword: Oklahoma

Place\_Keyword: Oregon
Place\_Keyword: Pennsylvania
Place\_Keyword: Puerto Rico
Place\_Keyword: Rhode Island
Place\_Keyword: South Carolina
Place\_Keyword: South Dakota
Place Keyword: Tennessee

Place\_Keyword: Texas

Place\_Keyword: Utah
Place\_Keyword: Vermont
Place\_Keyword: Virgin Islands
Place\_Keyword: Virginia
Place\_Keyword: Washington
Place\_Keyword: West Virginia
Place\_Keyword: Wisconsin
Place\_Keyword: Wyoming

1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact Contact\_Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

### 2. Data Quality Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical Consistency Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional Accuracy: Unknown

2.5 Lineage: Unknown

### 3. Spatial\_Data\_Organization\_Information

3.1 Indirect Spatial Reference:

3.2 Direct\_Spatial\_Reference\_Method: Point

3.3 Point and Vector Object Information: 16,930

### 4. Spatial\_Reference\_Information

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical Coordinate System Definition: Not Applicable

### 5. Entity\_and\_Attribute\_Information:

#### 5.2 Overview Description

5.2.1 Entity\_and\_Attribute\_Overview:

The airport runways database file and the individual state and territory files contain 15 fields.

The airport runways database file and the Entity\_and\_Attribute\_Detail\_Citation: ID
Entity\_and\_Attribute\_Detail\_Citation: NAME
Entity\_and\_Attribute\_Detail\_Citation: A\_NAME
Entity\_and\_Attribute\_Detail\_Citation: ARPT\_ID
Entity\_and\_Attribute\_Detail\_Citation: CLASS
Entity\_and\_Attribute\_Detail\_Citation: RNWY\_L
Entity\_and\_Attribute\_Detail\_Citation: CAPACITY
Entity\_and\_Attribute\_Detail\_Citation: PAVMNT
Entity\_and\_Attribute\_Detail\_Citation: COST

Entity\_and\_Attribute\_Detail\_Citation: ELEVAT

Entity\_and\_Attribute\_Detail\_Citation: LAT
Entity\_and\_Attribute\_Detail\_Citation: LONG
Entity\_and\_Attribute\_Detail\_Citation: COUNTY
Entity\_and\_Attribute\_Detail\_Citation: COMMENT

Entity\_and\_Attribute\_Detail\_Citation: ID\_

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

### 6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

#### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

#### 6.5 Custom Order Process

N/A

#### 7. Metadata Reference Information

7.1 Metadata\_Date: 20010301

7.2 Metadata Contact:

Contact Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact\_Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

## **Utility Systems**

### 4.1 Potable Water Supply Systems

### 4.1.1 Transmission Pipelines

### 1. Identification Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication\_Date: 19970601

Title: HAZUS: Utility Systems: Transmission Pipelines

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/,

http://www.atcouncil.org/.

1.2 Description:

Abstract:

The database was developed from The ATC-25 inventory of lifeline transmission facilities for the conterminous United States. The data were used in the development of the ATC-25 report, Seismic Vulnerability and Impact of Disruption of Lifelines in the Conterminous United States, which was published by the Applied Technology Council in 1991. With the exception of oil and gas pipeline data provided by the National Petroleum Council, the inventory of data generally were provided by the Federal Emergency Management Agency (FEMA) and date from about 1966, unless later updated by FEMA. The data were combined and reduced through two operations: (1) reduction in the number of links by a factor of about ten to reduce the size of the database to a manageable size for analysis (i.e., minor curvatures at the local level have been eliminated); and (2) continuity corrections so that transmission lines between separately digitized sections (e.g., across state boundaries) would be continuous. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

The contact information for ATC is: Applied Technology Council, 555 Twin Dolphin Drive, Suite 550, Redwood City, California 94065. Phone: (650) 595-1542. Fax: (650) 593-2320. E-mail: atc@atcouncil.org.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with water pipelines for a given earthquake scenario. By evaluating this information in conjunction with estimates of damage to water facilities, the HAZUS user can determine the extent of disruption the earthquake scenario may cause to the water system in the region.

1.3 Time Period of Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: unknown Ending Date: unknown

1.4 Status:

Progress: Complete

Maintenance and Update Frequency: As needed

1.5 Spatial Domain

Bounding\_Coordinates:

West Bounding Coordinate: -122.969

East\_Bounding\_Coordinate: --122.847 North\_Bounding\_Coordinate: 41.061 South\_Bounding\_Coordinate: 33.528

### 1.6 Keywords:

Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Lifelines
Theme\_Keyword: Utility Systems
Theme\_Keyword: Pipelines

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place Keyword: Delaware

Place\_Keyword: District of Columbia

Place\_Keyword: Florida
Place\_Keyword: Georgia
Place\_Keyword: Hawaii
Place\_Keyword: Idaho
Place\_Keyword: Illinois
Place\_Keyword: Indiana

Place\_Keyword: Iowa Place\_Keyword: Kansas

Place\_Keyword: Kentucky Place Keyword: Louisiana

Place\_Keyword: Maine
Place\_Keyword: Maryland

Place\_Keyword: Massachusetts

Place\_Keyword: Michigan
Place\_Keyword: Minnesota
Place\_Keyword: Mississippi
Place\_Keyword: Missouri
Place\_Keyword: Montana
Place\_Keyword: Nebraska
Place Keyword: Nevada

Place\_Keyword: New Hampshire Place\_Keyword: New Jersey Place\_Keyword: New Mexico Place\_Keyword: New York

Place\_Keyword: North Carolina Place\_Keyword: North Dakota

Place\_Keyword: Ohio
Place\_Keyword: Oklahoma
Place\_Keyword: Oregon

Place Keyword: Pennsylvania Place\_Keyword: Puerto Rico Place Keyword: Rhode Island Place\_Keyword: South Carolina Place Keyword: South Dakota Place\_Keyword: Tennessee Place Keyword: Texas Place Keyword: Utah Place Keyword: Vermont Place Keyword: Virgin Islands Place\_Keyword: Virginia Place\_Keyword: Washington Place\_Keyword: West Virginia Place Keyword: Wisconsin Place\_Keyword: Wyoming 1.7 Access Constraints: None 1.8 Use Constraints: None 1.9 Point of Contact Contact\_Information: Contact Person Primary: Contact\_Person: Philip Schneider Contact\_Address: Address\_Type: mailing and physical address Address: National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700 City: Washington State: D.C. Postal Code: 20005 Contact\_Voice\_Telephone: 202-289-7800 Contact\_Electronic\_Mail\_Address: pschneider@nibs.org 2. Data\_Quality\_Information 2.1 Attribute Accuracy: Unknown 2.2 Logical Consistency Report: Unknown 2.3 Completeness Report: Unknown 2.4 Positional Accuracy: Unknown 2.5 Lineage: Unknown 3. Spatial\_Data\_Organization\_Information 3.1 Indirect\_Spatial\_Reference:

3.2 Direct\_Spatial\_Reference\_Method: Line

3.3 Point\_and\_Vector\_Object\_Information: 62

### 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

### 5. Entity and Attribute Information:

5.2 Overview Description

5.2.1 Entity\_and\_Attribute\_Overview:

The transmission pipeline database file and the individual state and territory files contain 22 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID

Entity\_and\_Attribute\_Detail\_Citation: SYSTEMID

Entity and Attribute Detail Citation: NAME

Entity and Attribute Detail Citation: OWNER

Entity\_and\_Attribute\_Detail\_Citation: CLASS

Entity\_and\_Attribute\_Detail\_Citation: G\_CLASS

Entity\_and\_Attribute\_Detail\_Citation: STATUS

Entity\_and\_Attribute\_Detail\_Citation: UP\_NODE

Entity\_and\_Attribute\_Detail\_Citation: DN\_NODE

Entity and Attribute Detail Citation: ROUGH

Entity and Attribute Detail Citation: MIN LOSS

Entity and Attribute Detail Citation: DIAMETER

Entity and Attribute Detail Citation: LENGTH

Entity\_and\_Attribute\_Detail\_Citation. LENGT

Entity\_and\_Attribute\_Detail\_Citation: MATRL

Entity\_and\_Attribute\_Detail\_Citation: JOINT Entity and Attribute Detail Citation: YEAR B

Entity\_and\_/ttilbute\_Detail\_Oitation: \FAR\_UD

Entity\_and\_Attribute\_Detail\_Citation: YEAR\_UPG

Entity\_and\_Attribute\_Detail\_Citation: COST

Entity\_and\_Attribute\_Detail\_Citation: ELEVAT

Entity\_and\_Attribute\_Detail\_Citation: COUNTY Entity and Attribute Detail Citation: COMMENT

Entity and Attribute Detail Citation: ID

### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

#### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

#### 7. Metadata Reference Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact Electronic Mail Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

#### 4.1.2 Facilities

### 1. Identification\_Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Utility Systems: Potable Water Facilities

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

#### 1.2 Description:

Abstract:

The database was developed from the ATC-25 inventory of lifeline transmission facilities for the conterminous United States. The data were used in the development of the ATC-25 report, Seismic Vulnerability and Impact of Disruption of Lifelines in the Conterminous United States, which was published by the Applied Technology Council in 1991. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

The contact information for ATC is: Applied Technology Council, 555 Twin Dolphin Drive, Suite 550, Redwood City, California 94065. Phone: (650) 595-1542. Fax: (650) 593-2320. E-mail: <a href="mailto:atc@atcouncil.org">atc@atcouncil.org</a>.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with water facilities for a given earthquake scenario. By evaluating this information in conjunction with estimates of damage to water pipelines, the HAZUS user can determine the extent of disruption the earthquake scenario may cause to the water system in the region.

```
1.3 Time_Period_of_Content:
   Time Period Information:
           Range_of_Dates/Times:
                  Beginning_Date: unknown
                  Ending Date: unknown
1.4 Status:
   Progress: Complete
   Maintenance_and_Update_Frequency: As needed
1.5 Spatial Domain
   Bounding_Coordinates:
          West Bounding Coordinate: -123.558
           East_Bounding_Coordinate: -79.332
           North Bounding Coordinate: 47.882
           South Bounding Coordinate: 30.358
1.6 Keywords:
   Theme:
           Theme_Keyword: HAZUS
           Theme Keyword: Inventory
           Theme_Keyword: Lifelines
           Theme Keyword: Utility Systems
           Theme_Keyword: Potable Water Facilities
           Theme Keyword: Treatment Plants
           Theme Keyword: Wells
           Theme_Keyword: Storage Tanks
           Theme Keyword: Pumping Plants
   Place:
           Place Keyword: USA
           Place_Keyword: Alabama
           Place Keyword: Alaska
           Place_Keyword: Arizona
           Place Keyword: Arkansas
           Place Keyword: California
           Place Keyword: Colorado
           Place Keyword: Connecticut
           Place Keyword: Delaware
           Place_Keyword: District of Columbia
           Place_Keyword: Florida
           Place Keyword: Georgia
           Place_Keyword: Hawaii
           Place Keyword: Idaho
           Place Keyword: Illinois
           Place Keyword: Indiana
           Place_Keyword: Iowa
```

Place\_Keyword: Kansas Place\_Keyword: Kentucky

Place Keyword: Louisiana Place\_Keyword: Maine Place\_Keyword: Maryland Place\_Keyword: Massachusetts Place Keyword: Michigan Place\_Keyword: Minnesota Place Keyword: Mississippi Place Keyword: Missouri Place Keyword: Montana Place Keyword: Nebraska Place\_Keyword: Nevada Place\_Keyword: New Hampshire Place\_Keyword: New Jersey Place Keyword: New Mexico Place\_Keyword: New York Place Keyword: North Carolina Place\_Keyword: North Dakota Place Keyword: Ohio Place\_Keyword: Oklahoma Place Keyword: Oregon Place\_Keyword: Pennsylvania Place\_Keyword: Puerto Rico Place\_Keyword: Rhode Island Place\_Keyword: South Carolina Place Keyword: South Dakota Place Keyword: Tennessee Place Keyword: Texas Place\_Keyword: Utah Place Keyword: Vermont Place\_Keyword: Virgin Islands Place Keyword: Virginia Place\_Keyword: Washington Place\_Keyword: West Virginia Place Keyword: Wisconsin Place\_Keyword: Wyoming 1.7 Access Constraints: None 1.8 Use\_Constraints: None 1.9 Point\_of\_Contact Contact\_Information: Contact\_Person\_Primary: Contact\_Person: Philip Schneider Contact Address: Address\_Type: mailing and physical address Address: National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700 City: Washington State: D.C. Postal Code: 20005 Contact\_Voice\_Telephone: 202-289-7800

#### Contact Electronic Mail Address: pschneider@nibs.org

#### 2. Data Quality Information

- 2.1 Attribute Accuracy: Unknown
- 2.2 Logical\_Consistency\_Report: Unknown
- 2.3 Completeness\_Report: Unknown
- 2.4 Positional Accuracy: Unknown
- 2.5 Lineage: Unknown

### 3. Spatial\_Data\_Organization\_Information

- 3.1 Indirect Spatial Reference:
- 3.2 Direct Spatial Reference Method: Point
- 3.3 Point and Vector Object Information: 1,597

### 4. Spatial Reference Information

- 4.1 Horizontal\_Coordinate\_System\_Definition:
  - 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

#### 5. Entity and Attribute Information:

- 5.2 Overview Description
  - 5.2.1 Entity\_and\_Attribute\_Overview:

The potable water facilities database file and the individual state and territory files contain 31 fields.

Entity and Attribute Detail Citation: ID

Entity\_and\_Attribute\_Detail\_Citation: SYSTEMID

Entity and Attribute Detail Citation: NAME

Entity\_and\_Attribute\_Detail\_Citation: ADDRESS

Entity and Attribute Detail Citation: CITY

Entity and Attribute Detail Citation: STATE

Entity and Attribute Detail Citation: ZIPCODE

Entity and Attribute Detail Citation: TRACT

Entity\_and\_Attribute\_Detail\_Citation: OWNER

Entity\_and\_Attribute\_Detail\_Citation: CONTACT

Entity and Attribute Detail Citation: PHONE

Entity and Attribute Detail Citation: CLASS

Entity\_and\_Attribute\_Detail\_Citation: G\_CLASS

Entity\_and\_Attribute\_Detail\_Citation: FUNCTION

Entity\_and\_Attribute\_Detail\_Citation: BLDG\_TYPE

Entity and Attribute Detail Citation: DESIGNLVL

Entity and Attribute Detail Citation: FOUNDATION

Entity and Attribute Detail Citation: BU PWR

Entity and Attribute Detail Citation: ANCHOR

Entity and Attribute Detail Citation: YEAR B

```
Entity_and_Attribute_Detail_Citation: YEAR_UPG
Entity_and_Attribute_Detail_Citation: CAPACITY
Entity_and_Attribute_Detail_Citation: DEMAND
Entity_and_Attribute_Detail_Citation: COST
Entity_and_Attribute_Detail_Citation: ELEVAT
Entity_and_Attribute_Detail_Citation: LAT
Entity_and_Attribute_Detail_Citation: GEORES
Entity_and_Attribute_Detail_Citation: COUNTY
Entity_and_Attribute_Detail_Citation: COMMENT
Entity_and_Attribute_Detail_Citation: COMMENT
Entity_and_Attribute_Detail_Citation: ID
```

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

### 7. Metadata\_Reference\_Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:

Contact\_Information:

Contact Person Primary:

Contact Person: Philip Schneider

Contact\_Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact Electronic Mail Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

### 4.1.3 Distribution Pipelines

#### 1. Identification Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Utility Systems: Distribution Pipelines

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

### 1.2 Description:

#### Abstract:

The database, which is aggregated at the census tract level, was developed based on the assumption that the number of distribution lines is correlated to the number of local streets. This approximation is fairly accurate in urban areas, however, in rural areas it is conceivable that water supply utilizes primarily wells and therefore this assumption may not hold true. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with water distribution pipelines for a given earthquake scenario. By evaluating this information in conjunction with estimates of damage to water facilities, the HAZUS user can determine the extent of disruption the earthquake scenario may cause to the water system in the region.

### 1.3 Time\_Period\_of\_Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: Unknown Ending Date: Unknown

### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

#### 1.5 Spatial Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -187.637 degrees East\_Bounding\_Coordinate: -64.570 degrees North\_Bounding\_Coordinate: 71.434 degrees South\_Bounding\_Coordinate: 17.681 degrees

#### 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Lifelines
Theme\_Keyword: Utility Systems

Theme\_Keyword: Water Distribution Pipes

#### Place:

Place\_Keyword: USA

Place\_Keyword: Alabama

Place\_Keyword: Alaska

Place\_Keyword: Arizona

Place\_Keyword: Arkansas

Place Keyword: California

Place\_Keyword: Colorado

Place Keyword: Connecticut

Place Keyword: Delaware

Place Keyword: District of Columbia

Place Keyword: Florida

Place\_Keyword: Georgia

Place\_Keyword: Hawaii

Place\_Keyword: Idaho

Place Keyword: Illinois

Place\_Keyword: Indiana

Place Keyword: Iowa

Place Keyword: Kansas

Place Keyword: Kentucky

Place\_Keyword: Louisiana

Place Keyword: Maine

Place\_Keyword: Maryland

Place\_Keyword: Massachusetts

Place\_Keyword: Michigan

Place\_Keyword: Minnesota

Place Keyword: Mississippi

Place Keyword: Missouri

Place Keyword: Montana

Place\_Keyword: Nebraska

Place Keyword: Nevada

Place\_Keyword: New Hampshire

Place Keyword: New Jersey

Place\_Keyword: New Mexico

Place\_Keyword: New York

Place Keyword: North Carolina

Place\_Keyword: North Dakota

Place Keyword: Ohio

Place\_Keyword: Oklahoma

Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania

Place Keyword: Puerto Rico

Place\_Keyword: Rhode Island

Place Keyword: South Carolina

Place Keyword: South Dakota

Place Keyword: Tennessee

Place Keyword: Texas

Place\_Keyword: Utah

Place\_Keyword: Vermont

Place\_Keyword: Virgin Islands

Place Keyword: Virginia

Place\_Keyword: Washington

Place\_Keyword: West Virginia Place\_Keyword: Wisconsin Place\_Keyword: Wyoming

1.7 Access\_Constraints: None1.8 Use\_Constraints: None

1.9 Point\_of\_Contact
Contact Information:

Contact Person Primary:

Contact Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

### 2. Data\_Quality\_Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

#### 3. Spatial Data Organization Information

3.1 Indirect\_Spatial\_Reference:

3.2 Direct\_Spatial\_Reference\_Method: Polygon

3.3 Point\_and\_Vector\_Object\_Information:

### 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

### 5. Entity\_and\_Attribute\_Information:

5.2 Overview Description

5.2.1 Entity\_and\_Attribute\_Overview:

The potable water distribution database file and the individual state and territory files contain 4 fields.

Entity\_and\_Attribute\_Detail\_Citation: TRACT Entity\_and\_Attribute\_Detail\_Citation: PW\_DUCT Entity\_and\_Attribute\_Detail\_Citation: PW\_BRIT Entity\_and\_Attribute\_Detail\_Citation: PW\_TOTL

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

### 7. Metadata\_Reference\_Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:

Contact\_Information:

Contact Person Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact Electronic Mail Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

### 4.2 Wastewater Systems

### 4.2.1 Transmission Sewers

No Default HAZUS Data is available. Only a placeholder is provided.

### 4.2.2 Facilities

### 1. Identification\_Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Utility Systems: Transmission Sewers

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

#### 1.2 Description:

Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA. RMS converted this database into a format that was compatible with the HAZUS software.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with wastewater facilities for a given earthquake scenario.

### 1.3 Time\_Period\_of\_Content:

Time Period Information:

Range\_of\_Dates/Times:

Beginning\_Date: Unknown Ending Date: Unknown

#### 1.4 Status:

Progress: Complete

Maintenance and Update Frequency: As needed

#### 1.5 Spatial Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -158.042 degrees

East\_Bounding\_Coordinate: --66.074 North\_Bounding\_Coordinate: 59.250 South\_Bounding\_Coordinate: 18.426

### 1.6 Keywords:

Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Lifelines

Theme\_Keyword: Utility Systems
Theme Keyword: Wastewater facilities

Place:

Place Keyword: USA

Place\_Keyword: Alabama

Place\_Keyword: Alaska

Place\_Keyword: Arizona

Place\_Keyword: Arkansas

Place Keyword: California

Place\_Keyword: Colorado

Place Keyword: Connecticut

Place Keyword: Delaware

Place Keyword: District of Columbia

Place Keyword: Florida

Place\_Keyword: Georgia

Place\_Keyword: Hawaii

Place\_Keyword: Idaho

Place Keyword: Illinois

Place\_Keyword: Indiana

Place Keyword: Iowa

Place Keyword: Kansas

Place Keyword: Kentucky

Place\_Keyword: Louisiana

Place Keyword: Maine

Place\_Keyword: Maryland

Place\_Keyword: Massachusetts

Place\_Keyword: Michigan

Place\_Keyword: Minnesota

Place Keyword: Mississippi

Place Keyword: Missouri

Place Keyword: Montana

Place\_Keyword: Nebraska

Place Keyword: Nevada

Place\_Keyword: New Hampshire

Place\_Keyword: New Jersey

Place\_Keyword: New Mexico

Place\_Keyword: New York

Place\_Keyword: North Carolina

Place\_Keyword: North Dakota

Place Keyword: Ohio

Place\_Keyword: Oklahoma

Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania

Place\_Keyword: Puerto Rico

Place\_Keyword: Rhode Island

Place Keyword: South Carolina

Place Keyword: South Dakota

Place Keyword: Tennessee

Place Keyword: Texas

Place\_Keyword: Utah

Place\_Keyword: Vermont

Place\_Keyword: Virgin Islands

Place Keyword: Virginia

Place\_Keyword: Washington

Place\_Keyword: West Virginia Place\_Keyword: Wisconsin Place\_Keyword: Wyoming

1.7 Access\_Constraints: None1.8 Use\_Constraints: None

1.9 Point\_of\_Contact
Contact Information:

Contact Person Primary:

Contact Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

### 2. Data\_Quality\_Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

### 3. Spatial Data Organization Information

3.1 Indirect\_Spatial\_Reference:

3.2 Direct\_Spatial\_Reference\_Method: Point

3.3 Point\_and\_Vector\_Object\_Information: 1,265

### 4. Spatial Reference Information

4.1 Horizontal\_Coordinate\_System\_Definition:

### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

### 5. Entity\_and\_Attribute\_Information:

5.2 Overview Description

5.2.1 Entity\_and\_Attribute\_Overview:

The wastewater facilities database file and the individual state and territory files contain 26 fields.

Entity and Attribute Detail Citation: ID Entity and Attribute Detail Citation: NAME Entity and Attribute Detail Citation: ADDRESS Entity and Attribute Detail Citation: CITY Entity and Attribute Detail Citation: STATE Entity\_and\_Attribute\_Detail\_Citation: ZIPCODE Entity and Attribute Detail Citation: OWNER Entity and Attribute Detail Citation: CONTACT Entity and Attribute Detail Citation: PHONE Entity and Attribute Detail Citation: CLASS Entity\_and\_Attribute\_Detail\_Citation: FUNCTION Entity\_and\_Attribute\_Detail\_Citation: BLDG\_TYPE Entity and Attribute Detail Citation: DESIGNLVL Entity and Attribute Detail Citation: FOUNDATION Entity and Attribute Detail Citation: BU PWR Entity and Attribute Detail Citation: ANCHOR Entity\_and\_Attribute\_Detail\_Citation: YEAR\_B Entity\_and\_Attribute\_Detail\_Citation: CAPACITY Entity and Attribute Detail Citation: COST Entity and Attribute Detail Citation: ELEVAT Entity and Attribute Detail Citation: LAT Entity and Attribute Detail Citation: LONG Entity and Attribute Detail Citation: GEORES Entity and Attribute Detail Citation: COUNTY Entity and Attribute Detail Citation: COMMENT Entity and Attribute Detail Citation: ID

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

#### 6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

#### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

#### 6.5 Custom Order Process

N/A

#### 7. Metadata Reference Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:
Contact Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

#### 4.2.3 Distribution Sewers

#### 1. Identification\_Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Utility Systems: Distribution Sewers

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

1.2 Description:

Abstract:

The database, which was aggregated at the census tract level, was developed based on the assumption that the number of distribution sewers is strongly correlated to the number of local streets. This approximation is fairly accurate in urban areas, however, in rural areas it is conceivable that residences may be using septic tanks and therefore this assumption may not hold true. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

Purpose:

Currently, this data is not used in any analyses.

1.3 Time Period of Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: Unknown Ending\_Date: Unknown

1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

1.5 Spatial\_Domain

#### Bounding Coordinates:

West\_Bounding\_Coordinate: -187.637 degrees

East\_Bounding\_Coordinate: -64.570 North\_Bounding\_Coordinate: 71.434 South\_Bounding\_Coordinate: 17.681

#### 1.6 Keywords:

Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Lifelines
Theme\_Keyword: Utility Systems

Theme\_Keyword: Distribution Sewers

Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place Keyword: Delaware

Place\_Keyword: District of Columbia

Place\_Keyword: District of Place\_Keyword: Florida Place\_Keyword: Georgia Place\_Keyword: Hawaii Place\_Keyword: Idaho Place\_Keyword: Illinois Place\_Keyword: Indiana Place\_Keyword: Iowa Place\_Keyword: Kansas Place\_Keyword: Kentucky Place\_Keyword: Louisiana Place\_Keyword: Maine Place\_Keyword: Maryland

Place\_Keyword: Maryland
Place\_Keyword: Massachusetts
Place Keyword: Michigan

Place\_Keyword: Minnesota Place\_Keyword: Mississippi Place\_Keyword: Missouri Place\_Keyword: Montana Place\_Keyword: Nebraska Place\_Keyword: Nevada

Place\_Keyword: New Hampshire
Place\_Keyword: New Jersey
Place\_Keyword: New Mexico
Place\_Keyword: New York
Place Keyword: North Carolina

Place\_Keyword: North Dakota

```
Place Keyword: Ohio
             Place_Keyword: Oklahoma
             Place Keyword: Oregon
            Place_Keyword: Pennsylvania
             Place Keyword: Puerto Rico
             Place_Keyword: Rhode Island
             Place Keyword: South Carolina
            Place Keyword: South Dakota
             Place Keyword: Tennessee
             Place Keyword: Texas
            Place_Keyword: Utah
            Place_Keyword: Vermont
             Place_Keyword: Virgin Islands
            Place Keyword: Virginia
            Place_Keyword: Washington
             Place Keyword: West Virginia
             Place Keyword: Wisconsin
            Place Keyword: Wyoming
 1.7 Access Constraints: None
 1.8 Use Constraints: None
 1.9 Point_of_Contact
     Contact_Information:
            Contact_Person_Primary:
                    Contact_Person: Philip Schneider
             Contact Address:
                    Address_Type: mailing and physical address
                        National Institute of Building Sciences
                        1090 Vermont Avenue, NW; Suite 700
                    City: Washington
                    State: D.C.
                    Postal Code: 20005
            Contact_Voice_Telephone: 202-289-7800
             Contact Electronic Mail Address: pschneider@nibs.org
2. Data_Quality_Information
 2.1 Attribute Accuracy: Unknown
 2.2 Logical Consistency Report: Unknown
 2.3 Completeness_Report: Unknown
 2.4 Positional Accuracy: Unknown
 2.5 Lineage: Unknown
3. Spatial_Data_Organization_Information
     3.1 Indirect Spatial Reference:
     3.2 Direct Spatial Reference Method: Polygon
```

3.3 Point\_and\_Vector\_Object\_Information:

#### 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

# 5. Entity\_and\_Attribute\_Information:

5.2 Overview Description

5.2.1 Entity and Attribute Overview:

The distribution sewers database file and the individual state and territory files contain 4 fields.

Entity\_and\_Attribute\_Detail\_Citation: TRACT
Entity\_and\_Attribute\_Detail\_Citation: WW\_DUCT
Entity\_and\_Attribute\_Detail\_Citation: WW\_BRIT
Entity\_and\_Attribute\_Detail\_Citation: WW\_TOTL

#### 6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

#### 7. Metadata Reference Information

7.1 Metadata\_Date: 20010301

7.2 Metadata\_Contact:
 Contact\_Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

# 4.3 Oil Systems

# 4.3.1 Pipelines

#### 1. Identification Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication\_Date: 19970601

Title: HAZUS: Utility Systems: Oil Pipelines

On-line Linkage: <a href="http://www.fema.gov/hazus/">http://www.nibs.org/hazus/</a>.

#### 1.2 Description:

Abstract:

The database was developed from the ATC-25 inventory of lifeline transmission facilities for the conterminous United States. The data were used in the development of the ATC-25 report, Seismic Vulnerability and Impact of Disruption of Lifelines in the Conterminous United States, which was published by the Applied Technology Council in 1991. With the exception of oil and gas pipeline data provided by the National Petroleum Council, the inventory of data generally were provided by the Federal Emergency Management Agency (FEMA) and date from about 1966, unless later updated by FEMA. The data were combined and reduced through two operations: (1) reduction in the number of links by a factor of about ten to reduce the size of the database to a manageable size for analysis (i.e., minor curvatures at the local level have been eliminated); and (2) continuity corrections so that transmission lines between separately digitized sections (e.g., across state boundaries) would be continuous. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

The contact information for ATC is: Applied Technology Council, 555 Twin Dolphin Drive, Suite 550, Redwood City, California 94065. Phone: (650) 595-1542. Fax: (650) 593-2320. E-mail: atc@atcouncil.org.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with oil pipelines for a given earthquake scenario.

#### 1.3 Time\_Period\_of\_Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: Unknown Ending\_Date: Unknown

1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

1.5 Spatial Domain

Bounding Coordinates:

West\_Bounding\_Coordinate: -152.202 East\_Bounding\_Coordinate: -70.458 North\_Bounding\_Coordinate: 61.889 South\_Bounding\_Coordinate: 27.485

#### 1.6 Keywords:

Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Lifelines
Theme\_Keyword: Utility Systems
Theme\_Keyword: Oil Pipelines
Theme\_Keyword: Crude Oil
Theme\_Keyword: Refined Oil
Theme\_Keyword: Brittle Pipe
Theme Keyword: Ductile Pipe

Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place Keyword: Connecticut

Place\_Keyword: Delaware

Place\_Keyword: District of Columbia
Place\_Keyword: Florida
Place\_Keyword: Georgia
Place\_Keyword: Hawaii
Place\_Keyword: Idaho
Place\_Keyword: Illinois
Place\_Keyword: Indiana
Place\_Keyword: Iowa
Place\_Keyword: Kansas
Place\_Keyword: Kentucky
Place\_Keyword: Louisiana

Place\_Keyword: Maine

Place\_Keyword: Maryland
Place Keyword: Massachusetts

Place\_Keyword: Michigan

Place Keyword: Minnesota Place\_Keyword: Mississippi Place Keyword: Missouri Place\_Keyword: Montana Place Keyword: Nebraska Place\_Keyword: Nevada Place Keyword: New Hampshire Place Keyword: New Jersey Place Keyword: New Mexico Place Keyword: New York Place\_Keyword: North Carolina Place\_Keyword: North Dakota Place\_Keyword: Ohio Place Keyword: Oklahoma Place\_Keyword: Oregon Place Keyword: Pennsylvania Place Keyword: Puerto Rico Place Keyword: Rhode Island Place\_Keyword: South Carolina Place Keyword: South Dakota Place\_Keyword: Tennessee Place\_Keyword: Texas Place\_Keyword: Utah Place\_Keyword: Vermont Place Keyword: Virgin Islands Place\_Keyword: Virginia Place Keyword: Washington Place\_Keyword: West Virginia Place Keyword: Wisconsin Place\_Keyword: Wyoming 1.7 Access\_Constraints: None 1.8 Use\_Constraints: None 1.9 Point of Contact Contact\_Information: Contact\_Person\_Primary: Contact\_Person: Philip Schneider Contact Address: Address\_Type: mailing and physical address Address: National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700 City: Washington State: D.C. Postal Code: 20005 Contact\_Voice\_Telephone: 202-289-7800 Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

#### 2. Data\_Quality\_Information

2.1 Attribute\_Accuracy: Unknown

- 2.2 Logical\_Consistency\_Report: Unknown
- 2.3 Completeness\_Report: Unknown
- 2.4 Positional Accuracy: Unknown
- 2.5 Lineage: Unknown

#### 3. Spatial\_Data\_Organization\_Information

- 3.1 Indirect\_Spatial\_Reference:
- 3.2 Direct\_Spatial\_Reference\_Method: Line
- 3.3 Point\_and\_Vector\_Object\_Information: 3661

#### 4. Spatial Reference Information

- 4.1 Horizontal Coordinate System Definition:
  - 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

#### 5. Entity and Attribute Information:

5.2 Overview Description

5.2.1 Entity\_and\_Attribute\_Overview:

Entity and Attribute Detail Citation: ID

The oil pipelines database file and the individual state and territory files contain 14 fields.

Entity\_and\_Attribute\_Detail\_Citation: NAME Entity\_and\_Attribute\_Detail\_Citation: OWNER Entity\_and\_Attribute\_Detail\_Citation: CLASS Entity\_and\_Attribute\_Detail\_Citation: MATRL

Entity\_and\_Attribute\_Detail\_Citation: DIAMETER

Entity\_and\_Attribute\_Detail\_Citation: LENGTH Entity and Attribute Detail Citation: JOINT

Entity\_and\_Attribute\_Detail\_Citation: YEAR\_B

Entity\_and\_Attribute\_Detail\_Citation: COST

Entity\_and\_Attribute\_Detail\_Citation: ELEVAT Entity\_and\_Attribute\_Detail\_Citation: COUNTY

Entity\_and\_Attribute\_Detail\_Citation: COUNTY
Entity and Attribute Detail Citation: COMMENT

Entity and Attribute Detail Citation: ID

#### 6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

# 7. Metadata\_Reference\_Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

#### 4.3.2 Facilities

#### 1. Identification Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Utility Systems: Oil Facilities

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

1.2 Description:

Abstract:

The oil facilities database was developed from the ATC-25 inventory of lifeline transmission facilities for the conterminous United States. The data were used in the development of the ATC-25 report, Seismic Vulnerability and Impact of Disruption of Lifelines in the Conterminous

United States, which was published by the Applied Technology Council in 1991. With the exception of oil and gas pipeline data provided by the National Petroleum Council, the inventory of data generally were provided by the Federal Emergency Management Agency (FEMA) and date from about 1966, unless later updated by FEMA. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with oil facilities for a given earthquake scenario.

# 1.3 Time\_Period\_of\_Content:

Time Period Information:

Range of Dates/Times:

Beginning\_Date: Unknown Ending\_Date: Unknown

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

#### 1.5 Spatial\_Domain

Bounding Coordinates:

West\_Bounding\_Coordinate: -165.431 East\_Bounding\_Coordinate: -64.758 North\_Bounding\_Coordinate: 66.900 South Bounding Coordinate: 17.715

#### 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Lifelines
Theme\_Keyword: Utility Systems
Theme\_Keyword: Oil Facilities
Theme\_Keyword: Tank Farms
Theme Keyword: Refineries

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place Keyword: Delaware

Place Keyword: District of Columbia

Place\_Keyword: Florida
Place\_Keyword: Georgia
Place\_Keyword: Hawaii
Place\_Keyword: Idaho
Place\_Keyword: Illinois
Place\_Keyword: Indiana
Place Keyword: lowa

Place Keyword: Kansas Place\_Keyword: Kentucky Place Keyword: Louisiana Place\_Keyword: Maine Place Keyword: Maryland Place\_Keyword: Massachusetts Place Keyword: Michigan Place Keyword: Minnesota Place Keyword: Mississippi Place Keyword: Missouri Place\_Keyword: Montana Place\_Keyword: Nebraska Place\_Keyword: Nevada Place Keyword: New Hampshire Place\_Keyword: New Jersey Place Keyword: New Mexico Place Keyword: New York Place Keyword: North Carolina Place Keyword: North Dakota Place Keyword: Ohio Place\_Keyword: Oklahoma Place\_Keyword: Oregon Place Keyword: Pennsylvania Place\_Keyword: Puerto Rico Place Keyword: Rhode Island Place Keyword: South Carolina Place Keyword: South Dakota Place Keyword: Tennessee Place Keyword: Texas Place\_Keyword: Utah Place Keyword: Vermont Place\_Keyword: Virgin Islands Place\_Keyword: Virginia Place Keyword: Washington Place\_Keyword: West Virginia Place Keyword: Wisconsin Place\_Keyword: Wyoming 1.7 Access Constraints: None 1.8 Use\_Constraints: None 1.9 Point of Contact Contact Information: Contact Person Primary: Contact\_Person: Philip Schneider Contact Address: Address\_Type: mailing and physical address Address: National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700 City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

### 2. Data\_Quality\_Information

2.1 Attribute Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

#### 3. Spatial Data Organization Information

- 3.1 Indirect Spatial Reference:
- 3.2 Direct\_Spatial\_Reference\_Method: Point
- 3.3 Point\_and\_Vector\_Object\_Information: 2,006

# 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

#### 4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

#### 5. Entity and Attribute Information:

5.2 Overview Description

5.2.1 Entity\_and\_Attribute\_Overview:

The oil facilities database file and the individual state and territory files contain 26 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID

Entity and Attribute Detail Citation: NAME

Entity and Attribute Detail Citation: ADDRESS

Entity\_and\_Attribute\_Detail\_Citation: CITY

Entity and Attribute Detail Citation: STATE

Entity and Attribute Detail Citation: ZIPCODE

Entity\_and\_Attribute\_Detail\_Citation: OWNER

Entity\_and\_Attribute\_Detail\_Citation: CONTACT

Entity and Attribute Detail Citation: PHONE

Entity and Attribute Detail Citation: CLASS

Entity\_and\_Attribute\_Detail\_Citation: FUNCTION

Entity\_and\_Attribute\_Detail\_Citation: BLDG\_TYPE

Entity\_and\_Attribute\_Detail\_Citation: DESIGNLVL

Entity and Attribute Detail Citation: FOUNDATION

Entity\_and\_Attribute\_Detail\_Citation: BU\_PWR

Entity and Attribute Detail Citation: ANCHOR

Entity and Attribute Detail Citation: YEAR B

```
Entity_and_Attribute_Detail_Citation: CAPACITY
Entity_and_Attribute_Detail_Citation: COST
Entity_and_Attribute_Detail_Citation: ELEVAT
Entity_and_Attribute_Detail_Citation: LAT
Entity_and_Attribute_Detail_Citation: LONG
Entity_and_Attribute_Detail_Citation: GEORES
Entity_and_Attribute_Detail_Citation: COUNTY
Entity_and_Attribute_Detail_Citation: COMMENT
Entity_and_Attribute_Detail_Citation: COST
Entity_and_Attribute_Detail_Citation: ID_
```

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

# 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

#### 7. Metadata Reference Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:

Contact Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

# 4.4 Natural Gas Systems

# 4.4.1 Pipelines

#### 1. Identification Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication\_Date: 19970601

Title: HAZUS: Utility Systems: Natural Gas Pipelines

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

#### 1.2 Description:

#### Abstract:

The database was developed from the ATC-25 inventory of lifeline transmission facilities for the conterminous United States. The data were used in the development of the ATC-25 report, Seismic Vulnerability and Impact of Disruption of Lifelines in the Conterminous United States, which was published by the Applied Technology Council in 1991. With the exception of oil and gas pipeline data provided by the National Petroleum Council, the inventory of data generally were provided by the Federal Emergency Management Agency (FEMA) and date from about 1966, unless later updated by FEMA. The data were combined and reduced through two operations: (1) reduction in the number of links by a factor of about ten to reduce the size of the database to a manageable size for analysis (i.e., minor curvatures at the local level have been eliminated); and (2) continuity corrections so that transmission lines between separately digitized sections (e.g., across state boundaries) would be continuous. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

The contact information for ATC is: Applied Technology Council, 555 Twin Dolphin Drive, Suite 550, Redwood City, California 94065. Phone: (650) 595-1542. Fax: (650) 593-2320. E-mail: atc@atcouncil.org.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with natural gas pipelines for a given earthquake scenario.

#### 1.3 Time\_Period\_of\_Content:

Time Period Information:

Range\_of\_Dates/Times:

Beginning\_Date: Unknown Ending\_Date: Unknown

#### 1.4 Status:

Progress: Complete

Maintenance and Update Frequency: As needed

1.5 Spatial\_Domain

Bounding Coordinates:

West\_Bounding\_Coordinate: -122.908 East\_Bounding\_Coordinate: -71.200 North\_Bounding\_Coordinate: 48.878 South\_Bounding\_Coordinate: 25.351

## 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Lifelines

Theme\_Keyword: Utility Systems

Theme\_Keyword: Natural Gas Pipelines Theme\_Keyword: Brittle Pipelines Theme\_Keyword: Ductile Pipelines

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place\_Keyword: Delaware

Place\_Keyword: District of Columbia

Place\_Keyword: District of Place\_Keyword: Florida Place\_Keyword: Georgia Place\_Keyword: Hawaii Place\_Keyword: Idaho Place\_Keyword: Illinois Place\_Keyword: Indiana Place\_Keyword: Iowa Place Keyword: Kansas

Place\_Keyword: Kentucky Place\_Keyword: Louisiana Place\_Keyword: Maine Place\_Keyword: Maryland

Place\_Keyword: Massachusetts Place\_Keyword: Michigan

Place\_Keyword: Minnesota Place\_Keyword: Mississippi Place\_Keyword: Missouri

Place\_Keyword: Montana Place\_Keyword: Nebraska Place Keyword: Nevada

Place\_Keyword: New Hampshire

Place\_Keyword: New Jersey
Place\_Keyword: New Mexico
Place\_Keyword: New York
Place\_Keyword: North Carolina
Place Keyword: North Dakota

Place\_Keyword: Ohio

Place\_Keyword: Oklahoma
Place\_Keyword: Oregon
Place\_Keyword: Pennsylvania
Place\_Keyword: Puerto Rico
Place\_Keyword: Rhode Island
Place\_Keyword: South Carolina
Place\_Keyword: South Dakota

Place\_Keyword: Tennessee
Place\_Keyword: Texas
Place Keyword: Utah

Place\_Keyword: Vermont

Place\_Keyword: Virgin Islands

Place\_Keyword: Virginia

Place\_Keyword: Washington

Place\_Keyword: West Virginia Place Keyword: Wisconsin

Place\_Keyword: Wyoming

- 1.7 Access\_Constraints: None
- 1.8 Use\_Constraints: None
- 1.9 Point\_of\_Contact

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact\_Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

#### 2. Data\_Quality\_Information

2.1 Attribute Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

#### 3. Spatial\_Data\_Organization\_Information

3.1 Indirect\_Spatial\_Reference:

3.2 Direct\_Spatial\_Reference\_Method: Line

3.3 Point and Vector Object Information: 2,229

# 4. Spatial\_Reference\_Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical Coordinate System Definition: Not Applicable

#### 5. Entity\_and\_Attribute\_Information:

#### 5.2 Overview Description

5.2.1 Entity\_and\_Attribute\_Overview:

The natural gas pipeline database file and the individual state and territory files contain 14 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID
Entity\_and\_Attribute\_Detail\_Citation: NAME
Entity\_and\_Attribute\_Detail\_Citation: OWNER
Entity\_and\_Attribute\_Detail\_Citation: CLASS
Entity\_and\_Attribute\_Detail\_Citation: MATRL
Entity\_and\_Attribute\_Detail\_Citation: DIAMETER
Entity\_and\_Attribute\_Detail\_Citation: LENGTH
Entity\_and\_Attribute\_Detail\_Citation: YEAR\_B
Entity\_and\_Attribute\_Detail\_Citation: COST
Entity\_and\_Attribute\_Detail\_Citation: ELEVAT
Entity\_and\_Attribute\_Detail\_Citation: COUNTY
Entity\_and\_Attribute\_Detail\_Citation: COMMENT
Entity\_and\_Attribute\_Detail\_Citation: COMMENT
Entity\_and\_Attribute\_Detail\_Citation: COMMENT
Entity\_and\_Attribute\_Detail\_Citation: ID

# 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

#### 6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

#### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

# 6.5 Custom Order Process N/A

#### 7. Metadata Reference Information

7.1 Metadata\_Date: 20010301

7.2 Metadata\_Contact:
Contact Information:

Contact Person Primary:

Contact Person: Philip Schneider

Contact Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

#### 4.4.2 Facilities

#### 1. Identification Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Utility Systems: Natural Gas Facilities

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

#### 1.2 Description:

Abstract:

The database was developed from the ATC-25 inventory of lifeline transmission facilities for the conterminous United States. The data were used in the development of the ATC-25 report, Seismic Vulnerability and Impact of Disruption of Lifelines in the Conterminous United States, which was published by the Applied Technology Council in 1991. With the exception of oil and gas pipeline data provided by the National Petroleum Council, the inventory of data generally were provided by the Federal Emergency Management Agency (FEMA) and date from about 1966, unless later updated by FEMA. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with natural gas facilities.

1.3 Time\_Period\_of\_Content:

Time Period Information:

Range\_of\_Dates/Times:

Beginning\_Date: Unknown

#### Ending\_Date: Unknown

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

# 1.5 Spatial\_Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -150.733 East\_Bounding\_Coordinate: -76.833 North\_Bounding\_Coordinate: 60.533 South\_Bounding\_Coordinate: 26.421

#### 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Lifelines

Theme\_Keyword: Utility Systems

Theme\_Keyword: Natural Gas Facilities
Theme Keyword: Compressor Stations

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place Keyword: Delaware

Place\_Keyword: District of Columbia

Place\_Keyword: District of Coldinal Place\_Keyword: Florida Place\_Keyword: Georgia Place\_Keyword: Hawaii Place\_Keyword: Idaho Place\_Keyword: Illinois Place\_Keyword: Indiana Place\_Keyword: Iowa Place\_Keyword: Kansas Place\_Keyword: Kentucky Place\_Keyword: Louisiana Place\_Keyword: Maine Place\_Keyword: Maryland Place Keyword: Massachusetts

Place\_Keyword: Michigan Place\_Keyword: Minnesota Place\_Keyword: Mississippi Place\_Keyword: Missouri Place\_Keyword: Montana Place Keyword: Nebraska

Place\_Keyword: Nevada

Place\_Keyword: New Hampshire
Place\_Keyword: New Jersey
Place\_Keyword: New Mexico
Place\_Keyword: New York
Place\_Keyword: North Carolina
Place\_Keyword: North Dakota
Place\_Keyword: Ohio
Place\_Keyword: Oklahoma
Place\_Keyword: Oregon
Place\_Keyword: Pennsylvania
Place\_Keyword: Puerto Rico
Place\_Keyword: Rhode Island
Place\_Keyword: South Carolina
Place Keyword: South Dakota

Place\_Keyword: Tennessee
Place\_Keyword: Texas
Place\_Keyword: Utah
Place\_Keyword: Vermont
Place\_Keyword: Virgin Islands
Place Keyword: Virginia

Place\_Keyword: Washington Place\_Keyword: West Virginia Place\_Keyword: Wisconsin Place\_Keyword: Wyoming

1.7 Access\_Constraints: None
1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact\_Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact\_Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

#### 2. Data\_Quality\_Information

2.1 Attribute Accuracy: Unknown

2.2 Logical Consistency Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional Accuracy: Unknown

2.5 Lineage: Unknown

#### 3. Spatial\_Data\_Organization\_Information

- 3.1 Indirect\_Spatial\_Reference:
- 3.2 Direct\_Spatial\_Reference\_Method: Point
- 3.3 Point\_and\_Vector\_Object\_Information: 1,007

#### 4. Spatial Reference Information

4.1 Horizontal Coordinate System Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

#### 4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical Coordinate System Definition: Not Applicable

#### 5. Entity\_and\_Attribute\_Information:

5.2 Overview\_Description

5.2.1 Entity and Attribute Overview:

The natural gas facilities database file and the individual state and territory files contain 27 fields.

Entity and Attribute Detail Citation: ID Entity and Attribute Detail Citation: NAME Entity and Attribute Detail Citation: ADDRESS Entity\_and\_Attribute\_Detail\_Citation: CITY Entity\_and\_Attribute\_Detail\_Citation: STATE Entity and Attribute Detail Citation: ZIPCODE Entity and Attribute Detail Citation: OWNER Entity and Attribute Detail Citation: CONTACT Entity and Attribute Detail Citation: PHONE Entity\_and\_Attribute\_Detail\_Citation: CLASS Entity and Attribute Detail Citation: FUNCTION Entity and Attribute Detail Citation: BLDG TYPE Entity and Attribute Detail Citation: DESIGNLVL Entity and Attribute Detail Citation: FOUNDATION Entity\_and\_Attribute\_Detail\_Citation: BU\_PWR Entity\_and\_Attribute\_Detail\_Citation: ANCHOR Entity and Attribute Detail Citation: YEAR B Entity and Attribute Detail Citation: CAPACITY Entity and Attribute Detail Citation: COST Entity and Attribute Detail Citation: ELEVAT Entity\_and\_Attribute\_Detail\_Citation: LAT Entity and Attribute Detail Citation: LONG Entity and Attribute Detail Citation: GEORES

Entity\_and\_Attribute\_Detail\_Citation: COUNTY Entity and Attribute Detail Citation: COMMENT

Entity and Attribute Detail Citation: ID

#### 6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

#### 7. Metadata\_Reference\_Information

7.1 Metadata\_Date: 20010301

7.2 Metadata\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

#### 4.5 Electric Power Systems

## 4.5.1 Facilities

#### 1. Identification Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Utility Lifelines: Electric Power Facilities Database

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

# 1.2 Description:

#### Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA. FEMA provided a single database (electric.dbf) containing 1,183 electric power generation sites to RMS in late 1994. For every site the geographic coordinates were extracted. Eight (8) additional fields were extracted for each site: city, stateabbrvc, zipcode, plantname, utilname, totalcap, fipsstate and fipscounty.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with electric power facilities for a given earthquake scenario. The damage estimates are subsequently used to compute the estimated cost to repair or replace the damaged facilities. In addition, the damage information can also be used to estimate the electrical power availability to households within the region.

## 1.3 Time\_Period\_of\_Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: Unknown Ending Date: Unknown

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

#### 1.5 Spatial\_Domain

Bounding Coordinates:

West\_Bounding\_Coordinate: -159.564 degrees

East\_Bounding\_Coordinate: -65.828 North\_Bounding\_Coordinate: 64.847 South Bounding Coordinate: 18.130

# 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme Keyword: Utility Lifelines

Theme\_Keyword: Electric Power Facilities

Theme Keyword: Electric Power Generation Plants

Theme\_Keyword: Substations Theme\_Keyword: Power Plants

#### Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place Keyword: Colorado

Place\_Keyword: Connecticut

Place\_Keyword: Delaware

Place\_Keyword: District of Columbia

Place\_Keyword: Florida

Place\_Keyword: Georgia

Place\_Keyword: Hawaii

Place Keyword: Idaho

Place Keyword: Illinois

Place Keyword: Indiana

Place Keyword: Iowa

Place\_Keyword: Kansas

Place\_Keyword: Kentucky

Place\_Keyword: Louisiana

Place Keyword: Maine

Place\_Keyword: Maryland

Place Keyword: Massachusetts

Place Keyword: Michigan

Place Keyword: Minnesota

Place Keyword: Mississippi

Place Keyword: Missouri

Place\_Keyword: Montana

Place\_Keyword: Nebraska

Place Keyword: Nevada

Place\_Keyword: New Hampshire

Place Keyword: New Jersey

Place Keyword: New Mexico

Place Keyword: New York

Place\_Keyword: North Carolina

Place Keyword: North Dakota

Place\_Keyword: Ohio

Place Keyword: Oklahoma

Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania

Place Keyword: Puerto Rico

Place Keyword: Rhode Island

Place Keyword: South Carolina

Place\_Keyword: South Dakota

Place Keyword: Tennessee

Place\_Keyword: Texas

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Place\_Keyword: Utah

Place\_Keyword: Vermont

Place\_Keyword: Virginia

Place\_Keyword: Washington

Place\_Keyword: West Virginia

Place\_Keyword: Wisconsin

Place\_Keyword: Wyoming

1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point of Contact

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

# 2. Data\_Quality\_Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

#### 3. Spatial\_Data\_Organization\_Information

3.1 Indirect\_Spatial\_Reference:

3.2 Direct\_Spatial\_Reference\_Method: Point

3.3 Point\_and\_Vector\_Object\_Information: 1,183

## 4. Spatial\_Reference\_Information

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

#### 5. Entity and Attribute Information:

#### 5.2 Overview\_Description

5.2.1 Entity and Attribute Overview:

The electric power facilities database file and the individual state and territory files contain 25 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID

Entity\_and\_Attribute\_Detail\_Citation: NAME

Entity and Attribute Detail Citation: ADDRESS

Entity and Attribute Detail Citation: CITY

Entity and Attribute Detail Citation: STATE

Entity\_and\_Attribute\_Detail\_Citation: ZIPCODE

Entity\_and\_Attribute\_Detail\_Citation: OWNER

Entity and Attribute Detail Citation: CONTACT Entity and Attribute Detail Citation: PHONE Entity and Attribute Detail Citation: CLASS Entity\_and\_Attribute\_Detail\_Citation: FUNCTION Entity and Attribute Detail Citation: BLDG TYPE Entity and Attribute Detail Citation: DESIGNLVL Entity and Attribute Detail Citation: FOUNDATION Entity and Attribute Detail Citation: ANCHOR Entity and Attribute Detail Citation: YEAR B Entity and Attribute Detail Citation: CAPACITY Entity\_and\_Attribute\_Detail\_Citation: COST Entity and Attribute Detail Citation: ELEVAT Entity\_and\_Attribute\_Detail\_Citation: LAT Entity and Attribute Detail Citation: LONG Entity\_and\_Attribute\_Detail\_Citation: GEORES Entity and Attribute Detail Citation: COUNTY Entity and Attribute Detail Citation: COMMENT Entity and Attribute Detail Citation: ID

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

#### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

#### 7. Metadata Reference Information

7.1 Metadata\_Date: 20010301

7.2 Metadata\_Contact:

Contact Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005 Contact Voice Telephone: 202-289-7800

Contact Electronic Mail Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

# **4.6 Communication Systems**

#### 4.6.1 Facilities

#### 1. Identification\_Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Utility Lifelines: Communication Facilities Database

On-line Linkage: <a href="http://www.fema.gov/hazus/">http://www.nibs.org/hazus/</a>.

#### 1.2 Description:

#### Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA. FEMA provided the data to RMS in late 1994. A total of four (4) databases (ebsbroad.dbf, network.dbf, nodesnet.dbf and weather.dbf) were provided by FEMA. RMS consolidated the data into a single database containing 31,521 sites. For every site in the four databases the geographic coordinates were extracted. From the ebsbroad.dbf database three additional fields were extracted for each site: nodename, stateabbrvc, & mediatype. From the network.dbf database one additional fields were extracted for each site: netabbname. From the nodesnet.dbf database three additional fields were extracted for each site: nodename, stateabbrvc, & city. From the weather.dbf database two additional fields were extracted for each site: loc\_name & state.

#### Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with communication facilities for a given earthquake scenario. The damage estimates are subsequently used to compute the estimated cost to repair or replace the damaged communication facilities.

#### 1.3 Time Period of Content:

Time Period Information:

Range of Dates/Times:

Beginning\_Date: Unknown Ending\_Date: 19920000

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

1.5 Spatial\_Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -176.813 degrees

East\_Bounding\_Coordinate: -64.697 North\_Bounding\_Coordinate: 71.319 South Bounding Coordinate: 17.724

1.6 Keywords:

Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Utility Lifelines

Theme\_Keyword: Communication Facilities

Theme\_Keyword: Central Offices Theme\_Keyword: Radio Stations Theme\_Keyword: TV Stations

Theme\_Keyword: Television Stations

Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska

Place\_Keyword: American Samoa

Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Connecticut
Place Keyword: Delaware

Place\_Keyword: District of Columbia

Place\_Keyword: Florida
Place\_Keyword: Georgia
Place\_Keyword: Hawaii
Place\_Keyword: Idaho
Place\_Keyword: Illinois
Place\_Keyword: Indiana
Place\_Keyword: Iowa
Place\_Keyword: Kansas
Place\_Keyword: Kentucky

Place\_Keyword: Louisiana Place Keyword: Maine

Place Keyword: Maryland

Place Keyword: Massachusetts

Place\_Keyword: Massacriusett
Place\_Keyword: Michigan
Place\_Keyword: Minnesota
Place\_Keyword: Mississippi
Place\_Keyword: Missouri
Place\_Keyword: Montana
Place\_Keyword: Nebraska

Place Keyword: Nevada

Place\_Keyword: New Hampshire

Place Keyword: New Jersey Place\_Keyword: New Mexico Place Keyword: New York Place\_Keyword: North Carolina Place Keyword: North Dakota Place\_Keyword: Ohio Place Keyword: Oklahoma Place Keyword: Oregon Place Keyword: Pennsylvania Place Keyword: Puerto Rico Place\_Keyword: Rhode Island Place\_Keyword: South Carolina Place\_Keyword: South Dakota Place Keyword: Tennessee Place\_Keyword: Texas Place Keyword: Utah Place Keyword: Vermont Place Keyword: Virgin Islands Place\_Keyword: Virginia Place Keyword: Washington Place\_Keyword: West Virginia

1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact\_Information:

Contact\_Person\_Primary:

Place\_Keyword: Wisconsin Place\_Keyword: Wyoming

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

# 2. Data\_Quality\_Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical Consistency Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

#### 3. Spatial\_Data\_Organization\_Information

3.1 Indirect\_Spatial\_Reference:

3.2 Direct Spatial Reference Method: Point

3.3 Point\_and\_Vector\_Object\_Information: 31,521

#### 4. Spatial\_Reference\_Information

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical Coordinate System Definition: Not Applicable

#### 5. Entity and Attribute Information:

5.2 Overview Description:

5.2.1 Entity\_and\_Attribute\_Overview:

The communication facilities database file and the individual state and territory files contain 25 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID

Entity\_and\_Attribute\_Detail\_Citation: NAME

Entity\_and\_Attribute\_Detail\_Citation: ADDRESS

Entity and Attribute Detail Citation: CITY

Entity and Attribute Detail Citation: STATE

Entity and Attribute Detail Citation: ZIPCODE

Entity and Attribute Detail Citation: OWNER

Entity and Attribute Detail Citation: CONTACT

Entity and Attribute Detail Citation: PHONE

Entity and Attribute Detail Citation: CLASS

Entity and Attribute Detail Citation: FUNCTION

Entity\_and\_Attribute\_Detail\_Citation: BLDG\_TYPE

Entity and Attribute Detail Citation: DESIGNLVL

Entity\_and\_Attribute\_Detail\_Citation: FOUNDATION

Entity and Attribute Detail Citation: BU PWR

Entity and Attribute Detail Citation: ANCHOR

Entity and Attribute Detail Citation: YEAR B

Entity and Attribute Detail Citation: COST

Entity and Attribute Detail Citation: ELEVAT

Entity\_and\_Attribute\_Detail\_Citation: LAT

Entity and Attribute Detail Citation: LONG

Entity and Attribute Detail Citation: GEORES

Entity\_and\_Attribute\_Detail\_Citation: COUNTY

Entity and Attribute Detail Citation: COMMENT

Entity\_and\_Attribute\_Detail\_Citation: ID\_

#### 6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

#### 7. Metadata\_Reference\_Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:

Contact Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

# **Social Parameters**

# 5.1 Demographic Data

## 1. Identification Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Social Parameters: Demographic Database

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/,

http://www.census.gov/.

#### 1.2 Description:

#### Abstract:

The database was developed from data provided by the U.S. Census Bureau at the census tract level. Risk Management Solutions, Inc. (RMS) processed the 1990 version of this data into HAZUS.

The contact information for the U.S. Census Bureau is: U.S. Census Bureau, 4700 Silver Hill Road, Suitland, MD 20746.

#### Purpose:

This data is used to estimate the social losses. These include expected casualties and shelter demand.

#### 1.3 Time Period of Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: 19900000 Ending\_Date: 19900000

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

1.5 Spatial\_Domain

Bounding Coordinates:

West\_Bounding\_Coordinate: -187.637 degrees

East\_Bounding\_Coordinate: -64.570 North\_Bounding\_Coordinate: 71.434 South Bounding Coordinate: 17.681

#### 1.6 Keywords:

# Theme:

Theme\_Keyword: HAZUS
Theme\_Keyword: Inventory
Theme\_Keyword: Demographics
Theme\_Keyword: Population
Theme Keyword: Households

#### Place:

Place\_Keyword: USA Place Keyword: Alabama Place\_Keyword: Alaska Place Keyword: Arizona Place\_Keyword: Arkansas Place Keyword: California Place Keyword: Colorado Place Keyword: Connecticut Place Keyword: Delaware Place\_Keyword: District of Columbia Place\_Keyword: Florida Place\_Keyword: Georgia Place Keyword: Hawaii Place\_Keyword: Idaho Place Keyword: Illinois Place Keyword: Indiana Place Keyword: Iowa Place Keyword: Kansas Place Keyword: Kentucky Place\_Keyword: Louisiana Place\_Keyword: Maine Place Keyword: Maryland Place\_Keyword: Massachusetts Place Keyword: Michigan Place Keyword: Minnesota Place Keyword: Mississippi Place Keyword: Missouri Place Keyword: Montana Place\_Keyword: Nebraska Place Keyword: Nevada Place Keyword: New Hampshire Place\_Keyword: New Jersey Place Keyword: New Mexico Place Keyword: New York Place Keyword: North Carolina Place\_Keyword: North Dakota Place\_Keyword: Ohio Place\_Keyword: Oklahoma Place Keyword: Oregon Place\_Keyword: Pennsylvania Place Keyword: Puerto Rico Place Keyword: Rhode Island Place\_Keyword: South Carolina Place Keyword: South Dakota Place\_Keyword: Tennessee Place\_Keyword: Texas Place\_Keyword: Utah

Place\_Keyword: Vermont Place\_Keyword: Virgin Islands

Place\_Keyword: Virginia
Place\_Keyword: Washington
Place\_Keyword: West Virginia
Place\_Keyword: Wisconsin
Place Keyword: Wyoming

1.7 Access\_Constraints: None1.8 Use Constraints: None

1.9 Point\_of\_Contact

Contact Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

# 2. Data\_Quality\_Information

2.1 Attribute Accuracy: Unknown

2.2 Logical\_Consistency\_Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

#### 3. Spatial\_Data\_Organization\_Information

3.1 Indirect\_Spatial\_Reference:

3.2 Direct Spatial Reference Method: Polygon

3.3 Point\_and\_Vector\_Object\_Information:

#### 4. Spatial Reference Information

4.1 Horizontal\_Coordinate\_System\_Definition:

#### 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

# 5. Entity\_and\_Attribute\_Information:

5.2 Overview\_Description

#### 5.2.1 Entity\_and\_Attribute\_Overview:

The demographics database file and the individual state and territory files contain 38 fields.

Entity and Attribute Detail Citation: TRACT Entity and Attribute Detail Citation: POP Entity\_and\_Attribute\_Detail\_Citation: HHLD Entity and Attribute Detail Citation: GQ Entity\_and\_Attribute\_Detail\_Citation: AGE\_16 Entity\_and\_Attribute\_Detail\_Citation: AGE16\_65 Entity and Attribute Detail Citation: AGE 65 Entity and Attribute Detail Citation: RC W Entity and Attribute Detail Citation: RC B Entity and Attribute Detail Citation: RC NA Entity\_and\_Attribute\_Detail\_Citation: RC\_A Entity\_and\_Attribute\_Detail\_Citation: RC\_H Entity and Attribute Detail Citation: INC 10 Entity and Attribute Detail Citation: INC10 15 Entity\_and\_Attribute\_Detail\_Citation: INC15\_25 Entity and Attribute Detail Citation: INC25 35 Entity\_and\_Attribute\_Detail\_Citation: INC\_35 Entity\_and\_Attribute\_Detail\_Citation: RES\_D Entity and Attribute Detail Citation: RES N Entity and Attribute Detail Citation: COM WRK Entity and Attribute Detail Citation: IND WRK Entity and Attribute Detail Citation: COMM Entity\_and\_Attribute\_Detail\_Citation: HUOO\_SHU Entity and Attribute Detail Citation: HUOO MHU Entity and Attribute Detail Citation: HUOO MHS Entity and Attribute Detail Citation: HUOO MOB Entity and Attribute Detail Citation: HURO SHU Entity\_and\_Attribute\_Detail\_Citation: HURO\_MHU Entity and Attribute Detail Citation: HURO MHS Entity and Attribute Detail Citation: HURO MOB Entity and Attribute Detail Citation: HUV SHU Entity and Attribute Detail Citation: HUV MHU Entity and Attribute Detail Citation: HUV MHS Entity and Attribute Detail Citation: HUV MOB Entity and Attribute Detail Citation: HU U40 Entity and Attribute Detail Citation: HU O40 Entity and Attribute Detail Citation: HURO AV Entity and Attribute Detail Citation: HUOO AV

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

#### 7. Metadata\_Reference\_Information

7.1 Metadata\_Date: 20010301

7.2 Metadata\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

# Potential Earth Science Hazards (PESH) Data

# **6.1 Historical Epicenter**

## 1. Identification\_Information:

#### 1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19970601

Title: HAZUS: Hazard Data: Historical Epicenter Database

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

#### 1.2 Description:

#### Abstract:

The National Geophysical Data Center (NGDC) in Boulder Colorado provided the data used to develop this database. The NGDC seismicity catalog contains over 4 million earthquakes dating from 2100bc to 1985. The NGDC data information of epicentral time of origin, location, magnitude, depth and other earthquake related parameters.

To develop the HAZUS historic epicenter database, earthquakes with magnitude equal to 5.0 or greater were selected from the NGDC database. The earthquake epicenters ( $M \ge 5.0$ ) were plotted and epicenters that were not expected to cause significant ground motion in the United States were discarded. For the remaining epicenters, the date, magnitude, depth and catalog information was extracted. The HAZUS epicenter database contains 3,497 epicenters.

To order an updated seismicity catalog from the NGDC, contact NOAA EGCC/1, 325 Broadway, Boulder, CO 8030. The phone number is (303) 497-6277 and the email address is seginfo@ngdc.noaa.gov. The NGDC website is: http://www.ngdc.noaa.gov/

### Purpose:

This data is used in HAZUS to define an earthquake scenario. It is often of interest for the HAZUS user to estimate the effects of a historical earthquake on the region using the current economic and demographic conditions

### 1.3 Time Period of Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: 2100 BC Ending Date: 19850000

### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

1.5 Spatial\_Domain

Bounding Coordinates:

West Bounding Coordinate: -179.97 degrees

East\_Bounding\_Coordinate: -50.0 North\_Bounding\_Coordinate: 73.0 South Bounding Coordinate: 21.12

## 1.6 Keywords:

Theme:

Theme\_Keyword: HAZUS Theme\_Keyword: Hazard

Theme\_Keyword: Historical Epicenters
Theme\_Keyword: Earthquake Epicenters

Theme\_Keyword: Epicenter Theme\_Keyword: Hypocenter Theme Keyword: Seismology

## Place:

Place\_Keyword: USA
Place\_Keyword: Alabama
Place\_Keyword: Alaska
Place\_Keyword: Arizona
Place\_Keyword: Arkansas
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Delaware
Place\_Keyword: Idaho
Place\_Keyword: Illinois
Place\_Keyword: Indiana
Place\_Keyword: Kansas
Place\_Keyword: Kentucky
Place\_Keyword: Maine

Place\_Keyword: Minnesota Place\_Keyword: Missouri Place\_Keyword: Montana Place\_Keyword: Nebraska Place\_Keyword: Nevada

Place\_Keyword: New Hampshire
Place\_Keyword: New Jersey
Place\_Keyword: New Mexico
Place\_Keyword: New York
Place\_Keyword: North Carolina
Place\_Keyword: North Dakota

Place\_Keyword: Ohio Place\_Keyword: Oklahoma Place\_Keyword: Oregon

Place\_Keyword: Pennsylvania
Place\_Keyword: South Carolina

Place\_Keyword: Tennessee

Place\_Keyword: Texas
Place\_Keyword: Utah
Place\_Keyword: Vermont
Place\_Keyword: Virginia

Place\_Keyword: Washington Place\_Keyword: Wyoming

1.7 Access\_Constraints: None

1.8 Use\_Constraints: None

1.9 Point\_of\_Contact

Contact\_Information:

Contact Person Primary:

Contact\_Person: Philip Schneider

#### Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

## 2. Data\_Quality\_Information

2.1 Attribute\_Accuracy: Unknown

2.2 Logical Consistency Report: Unknown

2.3 Completeness\_Report: Unknown

2.4 Positional\_Accuracy: Unknown

2.5 Lineage: Unknown

## 3. Spatial\_Data\_Organization\_Information

3.1 Indirect\_Spatial\_Reference:

3.2 Direct\_Spatial\_Reference\_Method: Point

3.3 Point\_and\_Vector\_Object\_Information: 3,497

## 4. Spatial Reference Information

4.1 Horizontal\_Coordinate\_System\_Definition:

# 4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

## 4.1.4 Geodetic\_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical\_Coordinate\_System\_Definition: Not Applicable

### 5. Entity and Attribute Information:

## 5.2 Overview\_Description:

5.2.1 Entity and Attribute Overview:

The historical epicenter database file contains 8 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID

Entity and Attribute Detail Citation: STATE

Entity and Attribute Detail Citation: MAGNITUDE

Entity and Attribute Detail Citation: YEAR

Entity and Attribute Detail Citation: MONTH

Entity and Attribute Detail Citation: DATE

Entity and Attribute Detail Citation: DEPTH

Entity and Attribute Detail Citation: CATOLOG

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

## 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

## 7. Metadata\_Reference\_Information

7.1 Metadata Date: 20010301

7.2 Metadata\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact Person: Philip Schneider

Contact Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata Standard Version: FGDC-STD-001-1998

# 6.2 National Earthquake Fault Database

## 1. Identification Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under

contract to the National Institute of Building Sciences.

Publication Date: 19991101

Title: HAZUS: Hazard Data: National Earthquake Fault Database

On-line Linkage: http://www.fema.gov/hazus/, http://www.nibs.org/hazus/.

## 1.2 Description:

#### Abstract:

The United States Geological Survey (USGS) in Golden Colorado provided comprehensive fault database that was used to create the database. The database is consistent with the earthquake fault data used to develop the National Seismic Hazard Maps.

In addition to the national earthquake fault data, the USGS project website, http://geohazards.cr.usgs.gov/eq/, has a comprehensive set of information on seismic hazard.

The HAZUS fault database is public domain information that can be freely distributed, except for the portion of the faults located in California and Nevada. Both states have provided limitations on the distribution of the data specific to their respective states.

For earthquake fault data (or related information) in California, contact California Department of Mines and Geology (CDMG), 801 K Street, MS14-34, Sacramento, CA 95814 (916) 327-1850. The CDMG website address is: http://www.consrv.ca.gov/dmg/.

For earthquake fault data (or related information) in Nevada, contact Nevada Bureau of Mines and Geology (NBMG), Mail Stop 178, University of Nevada, Reno NV 89557 (775) 784-6691. The NBMG website address is: http://www.nbmg.unr.edu/.

### Purpose:

This data is used in HAZUS to define an earthquake scenario. It is often of interest for the HAZUS user to estimate the effects of a historical earthquake on the region using the current economic and demographic conditions.

### 1.3 Time Period of Content:

Time\_Period\_Information:

Range of Dates/Times:

Beginning\_Date: Unknown Ending Date: 19980000

#### 1.4 Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

# 1.5 Spatial\_Domain

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -126.388 East\_Bounding\_Coordinate: -104.595 North\_Bounding\_Coordinate: 48.089 South Bounding Coordinate: 30.457

## 1.6 Keywords:

#### Theme:

Theme\_Keyword: HAZUS
Theme Keyword: Hazard

Theme\_Keyword: Earthquake Faults
Theme Keyword: Fault Traces

Theme Keyword: Faults

Place:

Place\_Keyword: USA
Place\_Keyword: Arizona
Place\_Keyword: California
Place\_Keyword: Colorado
Place\_Keyword: Idaho
Place\_Keyword: Montana
Place\_Keyword: Nevada
Place\_Keyword: New Mexico
Place\_Keyword: Oregon
Place\_Keyword: Texas
Place\_Keyword: Utah
Place\_Keyword: Washington
Place\_Keyword: Wyoming

- 1.7 Access\_Constraints: Access to database requires password: The point of contact can provide the required password.
- 1.8 Use\_Constraints: Use of this information is limited by the United States Geological Survey, California Department of Mines and Geology and the Nevada Department of Mines and Geology.
- 1.9 Point\_of\_Contact

Contact Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact Address:

Address Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington State: D.C.

Postal Code: 20005

Contact Voice Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

## 2. Data Quality Information

2.1 Attribute Accuracy: Unknown

2.2 Logical Consistency Report: Unknown

2.3 Completeness Report: Unknown

2.4 Positional Accuracy: Unknown

2.5 Lineage: Unknown

### 3. Spatial Data Organization Information

3.1 Indirect Spatial Reference:

3.2 Direct\_Spatial\_Reference\_Method: Polyline

3.3 Point and Vector Object Information:

## 4. Spatial\_Reference\_Information

4.1 Horizontal Coordinate System Definition:

#### 4.1.1 Geographic:

- 4.1.4 Geodetic Model:
- 4.2 Vertical Coordinate System Definition: Not Applicable

## 5. Entity\_and\_Attribute\_Information:

## 5.2 Overview Description:

5.2.1 Entity\_and\_Attribute\_Overview:

The national earthquake fault database file contains 14 fields.

Entity\_and\_Attribute\_Detail\_Citation: ID
Entity and Attribute Detail Citation: STATE

Entity\_and\_Attribute\_Detail\_Citation: FAULT\_NAME
Entity\_and\_Attribute\_Detail\_Citation: MAX\_MAG
Entity\_and\_Attribute\_Detail\_Citation: FAULT\_TYPE

Entity\_and\_Attribute\_Detail\_Citation: LENGTH

Entity\_and\_Attribute\_Detail\_Citation: DIP
Entity\_and\_Attribute\_Detail\_Citation: WIDTH
Entity and Attribute Detail Citation: CHAR MAG

Entity\_and\_Attribute\_Detail\_Citation: DEPTH
Entity\_and\_Attribute\_Detail\_Citation: BEGNODE
Entity\_and\_Attribute\_Detail\_Citation: ENDNODE

Entity\_and\_Attribute\_Detail\_Citation: BEGID Entity\_and\_Attribute\_Detail\_Citation: ENDID

#### 6. Distribution Information

#### 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530 Contact FAX Number: 301-362-5335

### 6.2 Resource Description

N/A

#### 6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

### 6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<a href="http://www.fema.gov/hazus/hazus6c.htm">http://www.fema.gov/hazus/hazus6c.htm</a>). Completed order forms should be mailed or faxed to the FEMA distribution center.

### 6.5 Custom Order Process

N/A

### 7. Metadata Reference Information

7.1 Metadata\_Date: 20010301

7.2 Metadata Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Philip Schneider

Contact\_Address:

Address\_Type: mailing and physical address

Address:

National Institute of Building Sciences 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact\_Voice\_Telephone: 202-289-7800

Contact\_Electronic\_Mail\_Address: pschneider@nibs.org

7.3 Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata\_ Standard\_Version: FGDC-STD-001-1998

# **Glossary**

Most of the terms and definitions are from Department of Commerce, 1992, Spatial Data Transfer Standard (SDTS) (Federal Information Processing Standard 173): Washington: Department of Commerce, National Institute of Standards and Technology.

## **Accuracy**

The closeness of results of observations, computations or estimates to the values accepted as true.

## **Attribute**

A defined characteristic of an entity type (e.g., composition).

### **Attribute Domain Values**

The valid values that can be assigned for an attribute.

# **Bounding Coordinates:**

The limits of coverage of a dataset expressed by latitude and longitude values in the order western-most, eastern-most, northern-most, and southern-most. For datasets that include a complete band of latitude around the earth, the West Bounding Coordinate shall be assigned the value -180.0, and the East Bounding Coordinate shall be assigned the value 180.0.

### **Citation Information**

The recommended reference to be used for the dataset.

## **Completeness Report**

Information about omissions, selection criteria, generalization, definitions used, and other rules used to derive the dataset.

#### Coordinates

Pairs of numbers expressing horizontal distances along orthogonal axes; alternatively, triplets of numbers measuring horizontal and vertical distances.

# **Data Quality Information**

A general assessment of the quality of the dataset.

### **Description**

A characterization of the dataset, including its intended use and limitations.

## **Distribution Liability**

Statement of the liability assumed by the distributor.

## **Domain**

In the definition of the elements in the metadata standard, the domain identifies valid values for a data element.

#### Lineage

Information about the events, parameters, and source data, which constructed the dataset, and information about the responsible parties.

## **Point and Vector Object Information**

The types and numbers of vector or nongridded point spatial objects in the dataset.

### Geographic

The quantities of latitude and longitude, which define the position of a point on the Earth's surface with respect to a reference spheroid

# **Geospatial data**

Information that identifies the geographic location and characteristics of natural or constructed features and boundaries on the earth. This information may be derived from, among other things, remote sensing, mapping, and surveying technologies.

#### Horizontal

Tangent to the geoid or parallel to a plane that is tangent to the geoid.

# **Horizontal Coordinate System Definition**

The reference frame or system from which linear or angular quantities are measured and assigned to the position that a point occupies

# **Horizontal Positional Accuracy Report**

An explanation of the accuracy of the horizontal coordinate measurements and a description of the tests used.

### Latitude

Angular distance measured on a meridian north or south from the equator.

# Lineage

Information about the events, parameters, and source data, which constructed the dataset, and information about the responsible parties.

# Longitude

Angular distance between the plane of a meridian east or west from the plane of the meridian of Greenwich.

## **Maintenance and Update Frequency**

The frequency with which changes and additions are made to the dataset after the initial dataset is completed.

# Map

A spatial representation, usually graphic on a flat surface, of spatial phenomena.

# **Map Projection**

The systematic representation of all or part of the surface of the Earth on a plane or developable surface.

#### Metadata

Data about the content, quality, condition, and other characteristics of data.

#### **Metadata Contact**

The party responsible for the metadata information.

## **Metadata Standard Name**

The name of the metadata standard used to document the dataset.

#### **Metadata Standard Version**

Identification of the version of the metadata standard used to document the dataset.

## **National Geospatial Data Clearinghouse**

A distributed network of geospatial data producers, managers, and users linked electronically. Building on initiatives such as the national information infrastructure, the clearinghouse uses a distributed, electronically connected network, such as the Internet. Each data provider will describe available data in an electronic form, and provide these descriptions (or "metadata") using means that can be accessed over a communications network. Thus, the data for the clearinghouse are located at the sites of data producers (or, where more efficient, at the sites of intermediaries) throughout the country. Using the network, users will search these descriptions to locate data that are suitable for their applications.

## **Point of Contact**

Contact information for an individual or organization that is knowledgeable about the dataset.

## **Place**

Geographic locations characterized by the dataset.

# **Place Keyword**

The geographic name of a location covered by a dataset.

# **Positional Accuracy**

An assessment of the accuracy of the positions of spatial objects.

### Resolution

The minimum difference between two independently measured or computed values, which can be distinguished by the measurement or analytical method being considered or used.

## **Source Contribution**

Brief statement identifying the information contributed by the source to the dataset.

# **Spatial Reference Information**

The description of the reference frame for, and the means to encode, coordinates in the dataset.

### **Standard Order Process**

Ways in which the dataset may be obtained or received, and related instructions and fee information.

## **Status**

The state of and maintenance information for the dataset.

# **Temporal**

Time period(s) characterized by the dataset.

### Theme

Subjects covered by the dataset

## Theme Keyword

Common-use word or phrase used to describe the subject of the dataset.

## **Time Period of Content**

Time period(s) for which the dataset corresponds to the currentness reference.

### **Use Constraints**

Restrictions and legal prerequisites for using the dataset after access is granted. These include any use constraints applied to assure the protection of privacy or intellectual property, and any special restrictions or limitations on using the dataset.

# References

The following is a list of links that contain useful information on Metatada and which were reviewed while preparing this Appendix:

- 1. http://www.fgdc.gov/metadata/metadata.html
- 2. http://www.sdvc.uwyo.edu/metadata/
- 3. http://www.epa.gov/epahome/aboutepa.htm
- 4. http://biology.usgs.gov/fgdc.metadata/version2/
- 5. <a href="http://www.wessex.com/wessex/index.cfm">http://www.wessex.com/wessex/index.cfm</a>
- 6. <a href="http://corpsgeo1.usace.army.mil/">http://corpsgeo1.usace.army.mil/</a>
- 7. <a href="http://www.sdvc.uwyo.edu/metadata/education.html">http://www.sdvc.uwyo.edu/metadata/education.html</a>
- 8. <a href="http://oaspub.epa.gov/">http://oaspub.epa.gov/</a>
- 9. http://neic.usgs.gov/neis/states/states.html
- 10. http://www.dnb.com/
- 11. http://geohazards.cr.usgs.gov/eg/html/data.shtml
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